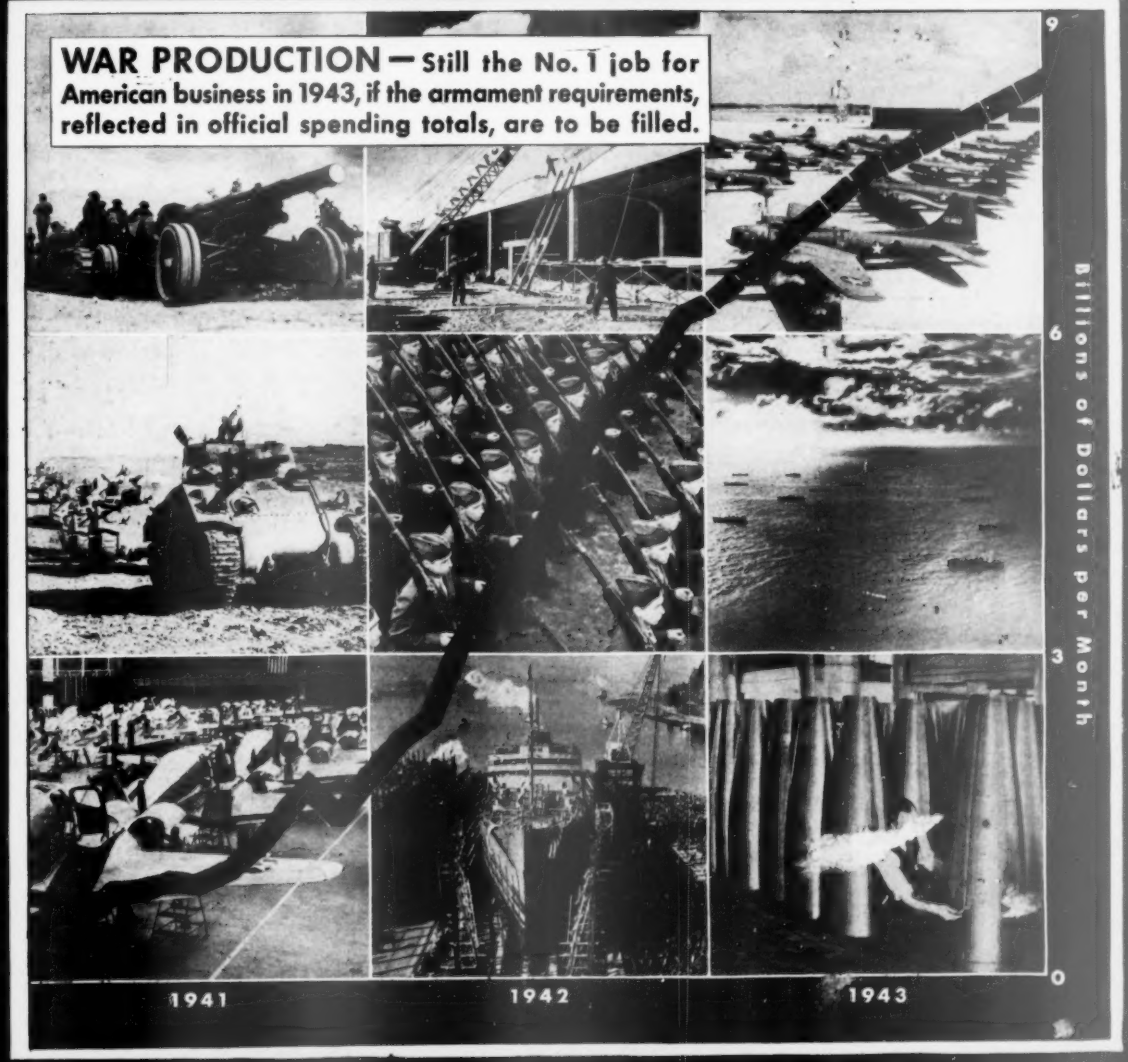
WEEK AGO

YEAR AGO

START OF WAR 1939

BUSINESS WEEK



SINESS
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DEX

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War isn't *all* destructive

EVERYBODY hates it. But there's one small bright spot at least that may help cheer you in these dark days. Because the machine tool industry has increased its output by 700%, American factories are at last being modernized.

Before the war, 70% of America's factory tools were obsolete. They couldn't produce enough for the workmen who ran them, nor earn enough for the owner to enable him to buy new tools.

Now those old, low-production, high-cost tools are replaced with new, high-production, low-cost-per-piece tools. The machine tool industry won't have business for all the years it will take these new tools to wear out, but that's the price we are willingly paying for victory. But American industry will at last be modernized. With these new tools, after the war, workmen can produce more. The more they produce, the less each product they make will cost. The less it costs, the more will be sold. The more sold, the more secure the productive workman's job will be, and the more good jobs for our returning soldiers. *That* is the one hope—and it's a real one—for a free, prosperous America in the years to come.

And there's another bright spot. War industry has trained hundreds of thousands of men—given them a skill, a value to themselves and their country, they never had before. Warner & Swasey, for example, has trained more than 4000 men. They've learned how to *make* our turret lathes; they'll help you *run* them after the war.

But first, of course, these new machines must be used to the full capacity we've built into them — to *win the war*. Without that, all this better future for America will be only bitter defeat.

YOU CAN TURN IT BETTER, FASTER, FOR LESS... WITH A WARNER & SWASEY

WARNER & SWASEY Turret Lathes Cleveland

It's a stomach pump for airplanes

A typical example of B. F. Goodrich development in rubber

DOWN in the big belly of bombers, between the skin-thin walls, are thousands of small parts — bolts, nuts, screws. Extras carried in by workmen, and metal shavings and bits of wire, must be cleaned out before the final wall is put in place, because loose pieces left rattling around could jam controls, short-circuit cables.

Special workmen used to go into the bomber with long-handled brushes, and slowly sweep out every corner and crevice. Then a manufacturer designed a special vacuum cleaner to suck up loose metal, as a home vacuum sucks up dirt. Fine, but the flexible hose on which the whole idea depended couldn't stand the gaff — the sharp metal cut it to ribbons.

Then the airplane manufacturer asked B. F. Goodrich about rubber made to stand abrasion and cutting action. He found such rubber had been developed to line gravel and ore chutes where it often lasted ten times longer than hard steel. He had us make vacuum hose lined with this rubber — and his cleaners were put to work in the bombers. Now they pump out every loose bit of metal in minutes that used to be hours . . . the B. F. Goodrich hose works all hours and all shifts, with no time lost by breakdowns or repairs.

Many rubber developments made, like this one, before the war by B. F. Goodrich have proven important in speeding war production, and many B. F. Goodrich developments for war will be adapted to better products for all industry, when the war is over. *The B. F. Goodrich Co., Industrial Products Div., Akron, O.*

B.F. Goodrich

FIRST IN RUBBER

BUSINESS WEEK

WHERE TO FIND IT

THE PICTURES

Cover—Acme; 14—Acme; 15, 16—Harris & Ewing; 17—Wide World; 19, 22—Acme; 26—International News; 32—Canadian War Information Bureau; 56—Acme.

THE STAFF

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WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Inflation Control Up to Congress

Price control by fiat went down the drain with Leon Henderson. It now depends on Congress whether inflation control itself goes down the same drain. It was Congress, reflecting popular feeling, that pulled down Henderson (page 15). Nevertheless, the Administration has no resort but to turn to Congress in a last effort to stabilize the economy by soaking up excess purchasing power with higher taxes and compulsory saving. For with appeasement on price control, the former threat that a huge volume of surplus buying power would crush ceilings in the stampede for goods becomes an almost certain danger.

The Job Gets Tougher

Scale of the inflation-control job to be done is emphasized by the ten billion dollar boost in the government's estimate of the 1943 national income to $135,000,000,000. This means that even after payment of some $18,000,000,000 in taxes—at present rates—money in the pocket will exceed goods on the shelf by some forty or forty-five billions.

• **Not Good Politics**—In the face of a public already resentful of the discomforts of war, there's no prospect that tax rates will be boosted to the astronomical levels necessary to close up this gap enough to matter.

Getting Tax Program Set

Stabilizer Byrnes and Treasury Secretary Morgenthau are readying tax measures to set before the new Congress. Key proposal will be a withholding tax, with most of the take considered as savings to be refunded six months to a year after the war. It's felt that by that time, consumer goods production will have risen enough to take the inflationary danger out of the refund.

The heat will be on Congress to speed this measure, since it's hoped to start collections under it as early in the year as possible.

• **Memo to Bookkeeper:**—Everyone realizes it'll be a nuisance to start payroll deduction in the middle of the year, but that's just one of the hazards of politics.

To Ease The Squeeze

Administration doesn't even hope, now, that it can cram a withholding tax down Congress's throat without making a bow to the Ruml plan (BW—Sep.5'42, p15) to forgive taxes on 1942 income, collect immediately on 1943, and thus avoid a squeeze on taxpayers with reduced incomes.

Byrnes is putting the heat on the Treasury to go along on a forgiving tax on income up to $2,000. On higher incomes only a percentage, graded downward as the amount rises, would be forgiven.

Alternative proposals to spread payment of 1942 taxes over several years are rejected on the ground that, every year, forgiveness on the still unpaid balance would become a political issue.

Objection to forgiving all 1942 taxes is that this would present a windfall to big taxpayers who normally set aside tax reserves and that the resultant free spending would be inflationary.

• **That Sales Tax Again**—Congressional pressure for a sales tax instead of further income taxation will be resisted, but it may well prove irresistible.

To Broaden Security Coverage

Inflation control will also be pleaded when F. D. R. renews his recommendations for broadening of the social security laws. With next year's high payrolls, increased contributions proposed would soak up an additional $3,000,000,000 or so.

The plan still is to ask for coverage of more people, national equalization of unemployment benefits, inclusion of disability and hospitalization compensation.

Wickard, Byrnes on Spot

With Henderson out, Secretary of Agriculture Wickard and Stabilization Director Byrnes become the main reliance for slowing farm and food price increases.

The farm bloc already has served notice on Wickard that he might taste the same fate as Henderson if he persists in opposing price rises. He'll have to yield somewhere, but because President Roosevelt himself proposed the formula of computing parity prices by deducting benefit payments, Wickard can't yield on that. He may be willing to scuttle the use of subsidies.

No. 1 Ration Man

Economic Stabilizer Byrnes is going to make himself the No. 1 man on rationing in order to take the heat off the kicked and cuffed OPA. Because Leon Henderson didn't mind taking the rap when things went wrong, nobody bothered much to improve the system before he was delivered to the mob.

Byrnes's strategy will be to make it plain which agencies are responsible for determining the necessity of rationing—Dept. of Agriculture on food, Ickes on oil, etc.; that OPA is only responsible for the rationing methods adopted, and that, in each case, Byrnes has reviewed both the necessity and the mechanics. Then Byrnes himself will announce the program. If possible, he will obtain and announce concurrence of the members of the stabilization board in the program.

• **Simplicity Due?**—Beginning with recast fuel oil rationing, look for simpler programs, more reliance on discretion of regional authorities.

For High Octane and Rubber

Secretly, WPB has given super-AAA priority to construction of 100-octane gasoline and synthetic rubber plants. The special-direction system set up early this month without any public notification is also designed to clear up the competition between the gas and rubber plants, which use almost identical equipment.

Under the new system, the 56 projects are arranged in order of urgency and each receives a special direction with a pulling power corresponding to its place on the list. Any special direction takes precedence over any priority rating, even an AAA. Sole exception is existing AAA ratings calling for delivery before Jan. 10.

Gillette Still on Warpath

Senator Guy M. Gillette of Iowa won't take Rubber Boss William Jeffers's "no" for an answer. It's not likely that Jeffers will get taken for the ride that Leon Henderson was but he will probably have to eat his words, to wit: that every effort is being made to follow closely the recommendations of the Baruch report but that "synthetic rubber plants must be built immediately without consideration for alcohol plants."

So far, WPB has approved plans for three alcohol plants, to be located in the grain belt—Omaha, Muscatine, Kansas City. A fourth, at Denver, is pending. These plants will be good for possibly a third to half of the 100,000,000 gal. of additional grain alcohol capacity recommended by the Baruch report.

• **Gillette's Accomplishments**—If Gillette hadn't kicked up the fuss about alky rubber last summer, there wouldn't have been a Baruch committee (BW—Dec.19'42,p28), and Gillette isn't for-

Your Street Some Morning . . . PERHAPS

Yes . . . this can happen to **YOUR** street. The destruction of war may seem far away today. But, there is only one sure way to keep it away from your home and your loved ones. And that is to give our fighting men everything they need . . . as much as possible . . . and as soon as possible.

Surely you want this Global War won somewhere other than on your street.

This means all of us must do our share to quicken Victory . . . work for Victory . . . think for Victory . . . invest in War Bonds and stamps . . . do our bit in Civilian Defense.

Each has a personal responsibility.

•

The Philadelphia Textile Finishers, Inc., 3701 N. Broad Street, Philadelphia, Pa. is devoting most of its current advertising in a sincere attempt to instil in every American heart and mind "What can I do to help win this War?"... and to kill in every American body and soul "What can I get out of this War?".

getting that the alcohol route requires much less critical material and time for plant construction.

More Alcohol Plants?

It's already apparent that Jeffers and the WPB feel that it's well to be prepared for an emergency in the alcohol-rubber-programs—political or otherwise—by announcing their intention to make location surveys and prepare engineering plans for additional grain alcohol plants just in case future war needs demonstrate the advisability of building them.

The synthetic rubber program now rests 66% on petroleum, 33% alcohol, with most of the alcohol coming from converted whisky distilleries (BW—Dec. 19'42,p28), and the rest from other sources such as Union Carbide's alky rubber process, from which initial production is expected in January.

In Time of War—

WPB's first instruction to the Metals Reserve Co. to start stockpiling steel scrap is small potatoes for the present. Although there are a few piles of household scrap lying around courthouse lawns, there's no surplus of prepared steel scrap except in Los Angeles. Hence initial purchases will only run to 35,000 tons.

But this first stockpiling operation does set up the machinery. Indications are that it won't be long before the machinery gets a workout. Steel companies are beginning to think about the possibility of an early peace, are becoming hesitant to carry large inventories, and are likely to welcome a chance to throw the burden on MRC.

Similarly, WPB is working out an arrangement under which the Reconstruction Finance Corp. will take over the inventory burden of a greatly expanded zinc smelter. The smelting firm has to carry 30,000 tons of concentrates, enough to wipe it out if the war demand ended. Plan is for RFC to take title to all except what constitutes a normal peacetime inventory.

• **Won't Hold Bag**—From the beginning of the war RFC has found it necessary to keep title to most of the new munitions plants. As the prospect of peace comes closer, expect pressure on the government to assume ownership of more and more inventories.

Grade Labeling "Rejected"

A vigorous canners' attack coupled with Leon Henderson's resignation has brought new hope to opponents of grade labeling. During the food processors' war conference in Chicago last week, OPA speakers talked of grade labeled canned fruits and vegetables as an accomplished fact (BW—Dec.19'42, p58). However, meeting in a brief session after the war conference, the National Canners Assn. declared that it is willing to assume the added burdens of feeding the U. S. Army, but added that it must "vigorously reject" mandatory grade labeling as "unnecessary, unworkable, and disruptive" as well as tending to "diminish the war effort of the industry."

Unless OPA's food division is able to slip the mandatory grade labeling regulation through fast, Henderson's resignation means that opponents of grade labeling will get a chance to appeal their case to the new OPA boss. Such an appeal might be based on the idea that, even if grade labeling did contribute something to price enforcement, this contribution would not be offset by the disruption that would be caused within the food industry.

Fraud in Wire Charged

Biggest headline-maker yet turned up by the Dept. of Justice's war frauds unit is an indictment against the Anaconda Wire & Cable Co., charging conspiracy to defraud the government in the sale of war material.

Anaconda wire is specifically accused of using a "button box" device to boost as high as ten times the test rating of cable sold to the Navy and Army signal corps. A second allegation states that the company removed inspection labels from tested wire, fastened them to uninspected products, and thus sold large quantities of untested material while the wire that originally passed muster would be tested over and over again, always accumulating a new batch of labels.

Finally, the indictment alleges that "false certifications [were] made in connection with claims for payment for carloads of field communication wire and degaussing cable supplied to the government."

Arnold in the Background

Though not the Department of Justice's biggest war-fraud suit from the viewpoint of money involved, the Anaconda Wire & Cable case reputedly is one to which it attaches great importance. For Arnold, whose views color a lot of the D. J.'s thinking, has long preached that wire and cable contracts should be allotted to smaller firms on the grounds that the big ones allegedly mishandle them.

In an official statement on the case, H. D. Keresey, president of Anaconda

No More Display Lighting

Display lighting soon will be turned off all over the country for the duration. Now being drafted, WPB's order probably will become effective about Feb. 1 and will ban lighting of signs, store windows, marquees, and other display and decorative lighting, gay white ways, etc.

• **Large Fuel Saving**—The ban is solely a fuel conservation measure. WPB's power division estimates that it will cut the coal consumption of utilities by 2,000,000 tons a year—roughly 5% and make smaller but more significant dents in consumption of oil and gas.

"Brownout" is the word for this douse-lights program to distinguish it from blackout and dimout. The term blackout, used during power curtailment in southeastern states a year ago, has taken on a harsher meaning since Pearl Harbor. And dimout signifies ship protection from sky glow.

WPB will hammer hard on fuel conservation as the purpose of its action, not only to distinguish the brownout from blackout and dimout, but also to keep the public from blaming the utility companies. It's the growing, though hardly yet vociferous, complaint about brilliantly lighted streets and stores and it comes from people whose homes are cold.

No shortage of generating capacity or of utility stocks of coal on hand is responsible. If WPB is able to prevent it, there'll be no twisting the program into a promotional scheme for more hydro power.

The order will be for complete darkening, rather than for lesser wattage. The idea of permitting store windows, for instance, simply to be dimmed has been considered, but it presents too many administrative complications, probably would invite squawks of discrimination. So the rule will be: "lights for public safety, no others."

WPB's power division is preparing the order for Nelson's OK within a couple of weeks or so.

WASHINGTON BULLETIN (Continued)

Wire, declared that none of the responsible officers or executives had any knowledge of failure to comply with specifications and that employees who were at fault had been dismissed.

More Gas for Salesmen

The New Year will bring a ray of sunshine to salesmen—those of the so-called "essential" commodities at least. A new OPA rationing order will give them additional mileage up to a maximum of 8,600 miles a year. (If 65% of their 1942 mileage amounts to less than this total, however, that's what they'll get.) Present B card maximum mileage for salesmen is 5,640 miles a year.

The modification, requested of OPA by Rubber Boss Jeffers, will apply to those salesmen engaged full time in selling necessary production equipment for farms, factories, mines, oil wells, lumber camps, and similar productive or extractive establishments, or essential food, shelter, fuel, clothing, or medical supplies.

Representatives of traveling salesmen's organizations have indicated the order will be adequate for essential business calls.

NWLB Decentralization

A rising chorus of labor criticism has needled the National War Labor Board into a broader program of decentralizing the handling of labor disputes than was at first planned in the creation of industry commissions (page 58). Since the castigation to which the board was subjected at the November convention of the C.I.O. in Boston, unions have kept up a steady pressure, clamoring for a quicker disposition of disputes.

Now NWLB is preparing to delegate authority for handling preliminary fact finding and panel hearings to the regional offices that were established to help administer the wage stabilization program. No change in the practice of having Washington certify cases is contemplated yet.

• **Board Has Last Word**—Difference will mainly be sending all documents in a certified case out to the region where a panel will be assembled to take evidence and make recommendations instead of bringing all parties and a panel to Washington as is now the case. NWLB itself will still be the final authority, passing on the recommendations of panels.

Death Sentence at Work

The enemies of the big holding companies did some chortling this week after news got around that the United Gas Improvement Co. was ready to dissolve under Sec. 11 of the Public Utility Act of 1935. U.G.I., popularly known as a Morgan concern, is one of the oldest of the holding companies and one of the most vigorous opponents of the so-called death sentence.

The general idea is for U.G.I. to commit suicide by distributing its two main holdings—Philadelphia Electric Co. and Public Service of New Jersey securities—to its preferred and common shareholders. Other holdings would be liquidated as expeditiously as possible. U.G.I. had been told earlier by the Securities and Exchange Commission that it could live only if it contracted itself into one integrated property serving the Philadelphia-Wilmington-Camden area, the heart of its system (BW—Feb.1'42,p14).

• **Sidelight**—When and if U.G.I. distributes its holdings in Jersey Public Service, SEC will have a brand new problem on its hands. That intrastate company has just been declared subject to SEC authority (BW—Dec.19'42, p102) because the courts held that U.G.I. exercised working control—of which it now proposes to dispose.

Nelson on Small Business

Senator Murray's small business committee is going to re-examine the wholesaler's and retailer's plight next month, so WPB—which expects a lambasting for being too tough on civilian supplies—is getting on the record early with its side of the situation (page 13). Donald Nelson has written Murray a letter suggesting that the distribution system be defrilled still more, that dealers should be warned that tougher days are ahead, and that perhaps some form of government-sponsored stockpiling of goods in shortage-afflicted areas should be expected. Nelson also raises the question of "governmental guidance" in keeping dealers alive.

Murray's committee, of course, will tear the letter up. The committee is violently opposed to any kind of concentration and views "governmental guidance" as bureaucracy and red tape. Murray's idea is that retailers should be kept in business by (1) loosening up civilian supplies and (2) providing government credit to distributors who want to expand, liquidate, or convert. A third plank in Murray's platform—higher price-ceilings—is regarded as a fait accompli with the resignation of Henderson.

• **The Official Launching**—The hearings next month, to be attended mainly by trade associations, are for the purpose of cranking up a legislative program.

—*Business Week's Washington Bureau*

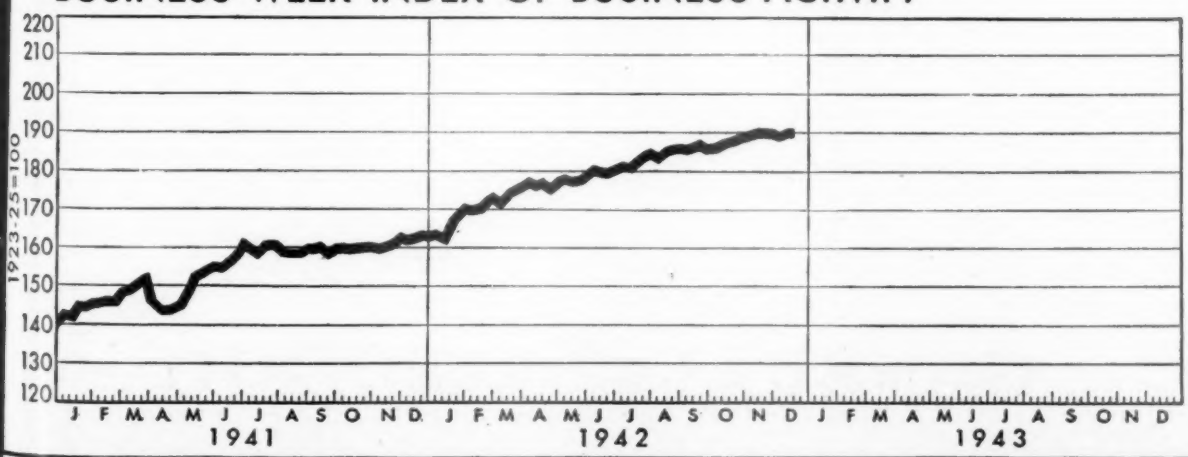
FIGURES OF THE WEEK

	§ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*190.5	†190.5	190.9	180.6	164.1
PRODUCTION					
Steel Ingot Operations (% of capacity)	98.1	98.4	98.3	98.0	93.4
Production of Automobiles and Trucks	15,660	17,835	18,270	23,225	65,875
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	$12,927	$14,343	$27,710	$42,128	$11,726
Electric Power Output (million kilowatt-hours)	3,980	3,938	3,795	3,434	3,495
Crude Oil (daily average, 1,000 bbls.)	3,895	3,881	3,912	3,721	4,314
Bituminous Coal (daily average, 1,000 tons)	1,917	†1,853	1,989	1,888	1,899
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	74	76	84	79	87
All Other Carloadings (daily average, 1,000 cars)	49	51	60	60	47
Money in Circulation (Wednesday series, millions)	$15,092	$14,986	$14,465	$12,208	$11,023
Department Store Sales (change from same week of preceding year)	+16%	9%	13%	−3%	2%
Business Failures (Dun & Bradstreet, number)	115	132	135	180	217
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	238.4	235.3	230.6	229.4	216.9
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	156.1	155.8	155.1	154.1	148.9
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	193.7	190.5	186.5	180.3	170.2
‡Finished Steel Composite (Steel, ton)	$56.73	$56.73	$56.73	$56.76	$56.73
‡Scrap Steel Composite (Iron Age, ton)	$19.17	$19.17	$19.17	$19.17	$19.17
‡Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	$1.29	†$1.27	$1.23	$1.14	$1.22
‡Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.50¢
Cotton (middling, ten designated markets, lb.)	19.75¢	19.60¢	19.16¢	19.00¢	17.37¢
‡Wool Tops (New York, lb.)	$1.220	$1.203	$1.205	$1.191	$1.281
‡Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	76.9	74.8	74.6	66.2	67.0
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.27%	4.30%	4.25%	4.34%	4.41%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.81%	2.81%	2.80%	2.84%	2.83%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.36%	2.36%	2.33%	2.32%	2.39%
U. S. Treasury 3-to-5-year Note Yield (taxable)	1.38%	1.28%	1.27%	1.17%	1.02%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	⅜–½%	⅜–½%	⅜–½%	⅜–½%	½–⅝%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	29,120	29,011	29,698	26,058	24,060
Total Loans and Investments, reporting member banks	39,829	38,444	37,905	31,677	30,306
Commercial and Agricultural Loans, reporting member banks	6,105	6,157	6,289	6,546	6,769
Securities Loans, reporting member banks	1,137	1,134	843	838	969
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	26,317	24,843	24,423	17,364	15,219
Other Securities Held, reporting member banks	3,283	3,297	3,310	3,537	3,658
Excess Reserves, all member banks (Wednesday series)	2,640	2,800	2,490	2,791	3,085
Total Federal Reserve Credit Outstanding (Wednesday series)	6,055	5,813	5,045	2,803	2,433

*Preliminary, week ended December 19th. † Revised.

‡Ceiling fixed by government. § Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



No Go for "Foreign Agents"

A chemical plant was having trouble with foreign agents in a supply line. Undigested material would sometimes pass through the feed pipes and contaminate the product. Processed material thus tainted had to be thrown away.

A G-E Application Engineer was consulted. At his suggestion, electronic "eyes" were installed at two points in the pipe line to watch for the darker-colored flow of undigested material. Now, when a darkened flow appears at the first "eye," a warning sounds. The operator then makes ready to divert the defective material through a by-pass valve as soon as the second phototube signals its arrival at the diversion point. He resets the valves for normal operation when the electronic watchman flashes the "all clear."

Thanks to the unfailing vigilance of these phototube sentries, the plant has now increased its production, by reducing waste that formerly occurred.

In your own plant there may be a process or operation that could be speeded or otherwise improved by electrical means. G-E Application Engineers have helped hundreds of others to step-up war production by some simple remedy. Perhaps they can help you. Their services are available without obligation. Just get in touch with our nearest office. *General Electric, Schenectady, N. Y.*

The Army-Navy "E", for Excellence in the manufacture of war equipment, now flies over six G-E plants employing 100,000 men and women.

GENERAL ELECTRIC

LET'S MAKE EVERY MAN-HOUR OF WAR EFFORT PRODUCE MAXIMUM RESULTS

Price Worries Blur the Future

War news continues favorable—and it must be given a dominant place in business planning—but Henderson's resignation revives all the old uncertainties over cost of living and wages.

Favorable war developments gave tone to the news this week as (1) Montgomery's Eighth Army drew the Allied African pincers hundreds of miles tighter about the Axis forces, (2) Soviet legions launched the predicted thrust in the direction of Rostov (BW—Nov. 28'42,p48), threatening more acutely than ever the Wehrmacht's exposed long flank towards Stalingrad and into the Caucasus, and (3) Gen. Wavell drove forward into Burma in a first step toward the heralded offensive to retake that area and reopen supply lines to China.

What Price Issues Mean

But unquestionably, dominant interest of business this week was in the possible relaxation of price control (page 15). Retail and consumer goods manufacturing businesses would be affected most immediately on the price front. But all industry faced a huge potential wage question were the official cost of living to be pushed upward as a result.

As it is, wage demands have been coming to the fore in recent weeks. Rail labor is asking a huge boost (page 56). West Coast aircraft workers have been pressing for increases since summer, and last week the union at one big company requested a release by the President from its no strike pledge. This week, the shoe workers announced a request for a 25% hike above January, 1941 levels on the grounds that wages are substandard.

These are but a few of the actual pay adjustments being asked, and demands for "hidden" increases, in the form of vacations, bonuses, shift premiums, etc., are prevalent throughout the country.

Cost of Living and Wages

Were indexes of living costs to rise substantially—aside from "unofficial" price gains (BW—Dec.19'42,p13)—labor would unquestionably demand an end to former wage stabilization regulations and would at least ask that hourly rates be tied once again to living costs, after the fashion of the National War Labor Board's Little Steel formula. The cost of living has advanced somewhat since May, and is now 19% above Jan., 1941 levels. Average hourly factory earnings are up 28%.

However, rates in nondurable goods industries are up but 21%, and when earnings in durable-goods lines are adjusted for overtime premiums to a straight-time basis, the gain appears as only 26%. And even these averages are statistically invalid so far as upgrading within an industry and movement of workers from low- to high-paid lines have artificially lifted the averages.

Labor's Point of View

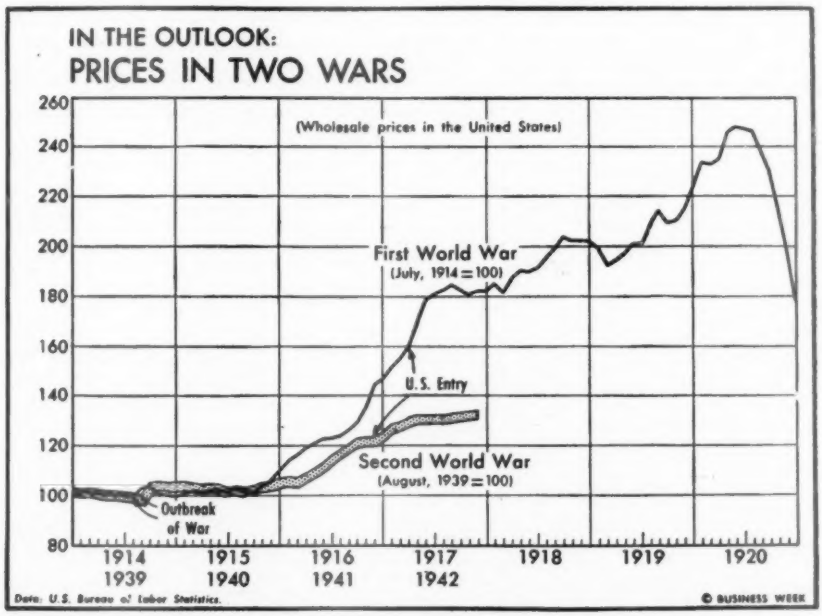
Clearly, then, the hourly wage-rate structure is vulnerable to even a 10% advance in retail prices of necessities. And even if living costs do not rise that much, appeasement on price control might in any case touch off a whole new movement for boosting labor's relative share, not just maintaining it.

Wage costs, therefore, may soon again become a potent factor in the profits outlook. And this time, no relief can be expected from increased efficiency. Rough indications are that output-per-man-hour in the third quarter was up less than 2% this year over 1941. And actually, while productivity was rising sharply in the expanding arms industries, it was declining in such basic lines as coal, steel, textiles. So, boosts in wages would inevitably require readjustments in industrial prices, setting off the inflation spiral.

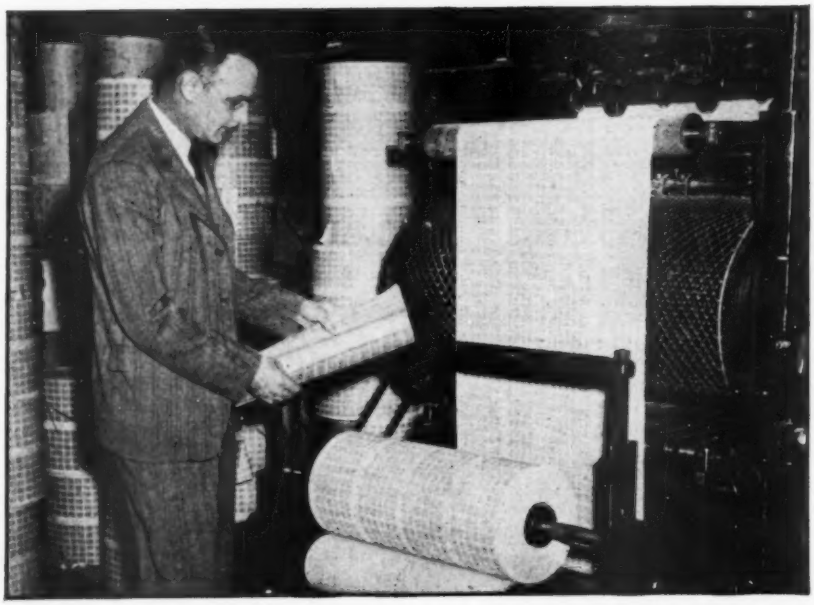
Shortages Grow Acute

On the civilian front, both Washington and the consuming public this week were coming to grips with the worsened gasoline and fuel oil situations (page 17). Agriculture Department officials reiterated their predictions that milk output might fall as much as 15% below demand next year. A shortage of 7% to 9%, relative to present requirements, was predicted in fats and oils, both for food and for industrial purposes.

With a very sharp tightening in civilian supplies for 1943 now a certainty, Donald Nelson this week introduced a novel thought as to how to deal with



Here is a contrast worth studying. Because in the last war not even piecemeal price control was begun until after our entry, prices jumped more than 80% in three years. This time, with ceilings clamped on key commodities since the spring of 1941, and on most others since May, 1942, prices have advanced less than 35%. But, note that a further rise of 20 points occurred in 1918, and one of nearly 50 more points after the war, when controls were relaxed. The fact that prices gained almost as much after our entry as before had considerable to do with the collapse in 1920. With price control on the political hot seat now (page 15), many are wondering whether the two telltale lines are going to run closer together in the future.



THINGS TO COME

Grim reminder that the year 1943 is to be one of restricted apportionment is the growing mass of new all-purpose ration books being run off presses of the Autographic Register Co., Hoboken, N. J. Expected to be ready for use next month, the stamp books, an aggregation of numbers and colors, are flexible enough to embrace everything from gasoline and fuel oil to food and clothing. Just what they will ration and when is still somewhat problematical, but meat and dairy products seem early prospects (BW—Oct.31'42,p15). Raymond Giesler, government printing office inspector, supervises the run before the sheets are chopped into books.

the mounting shortages. He suggested the accumulation of inventories of fuel, food, clothing, and health supplies to be stored near consuming areas, in order to guard against even temporary transportation emergencies.

Interestingly, Mr. Nelson went on to predict the concentration of retail and wholesale stores, as well as consumer-goods plants, in order to release labor and other facilities for war, and to suggest the creation of some financial pool out of which to compensate retailers and wholesalers who have suffered losses by reason of curtailment.

War is Still the Thing

The stock market showed renewed strength last week (page 62), but in this case technical factors, rather than any change in war prospects, probably played the biggest part. As 1942 draws to a close, however, and executives formulate 1943 plans, it is the war which looms as the big variable. Not only can war production plans be altered, as has occurred often enough by now, but also civilian supplies can be cut almost overnight, as we have just seen in the case of gasoline in the East. Fortunes of war will affect manpower mobilization and lend-lease operations in consumer goods, too, as well as the biggest question of all—the probable duration of the conflict.

Process Spreads

At least four sponge iron plants, excluding Republic's "melting stock" furnace, are operating or building.

When Congress concluded its historic 77th session last week, virtually the final words to echo down its halls were uttered in behalf of sponge iron, as a substitute for scrap in steelmaking. In choosing the final moments of the session to plug the native ores of his state for use in sponge iron, Rep. Knute Hill of Washington epitomized the concern that this controversial subject has aroused among the lawmakers.

• **Mailbags Flooded**—Actually, and in spite of opposition from the steel industry and the war metallurgy committee of the National Academy of Sciences, the House Committee on the Steel Shortage has pricked up its ears to the claims made in behalf of sponge iron. Its mailbags have been flooded with correspondence from communities starved for scrap, which see in the process salvation for their small foundries.

While controversy over the efficacy of sponge iron as a scrap substitute has been enlivening relations between the steel industry and the Department of Interior, the U. S. Bureau of Mines has gone ahead quietly with its own prospecting.

• **Pilot Plant**—At Boulder City, Nev., a couple months ago, the bureau converted old manufacturing facilities into a pilot plant capable of turning out sponge iron at a rate of seven tons a day by the Barrett rotary kiln process. The bureau is experimenting with various mixes and types of ore at this plant; within the past fortnight, Boulder City received its first shipment of low-content Oregon ores.

Work on a 50-ton plant for the bureau in Laramie, Wyo., was halted in October by the War Production Board, but, largely through the influence of Sen. Joseph C. O'Mahoney of Wyoming, WPB's facilities review committee gave it the green light early this month. The plant will reduce ores from the Sunrise district of Wyoming and obtain its coal from western Wyoming and southern Colorado.

• **Texas Plant Leased**—The bureau has leased a sponge iron plant at Longview, Tex., erected by Julius D. Madaras, and is completing arrangements to operate it. The plant lacked facilities for converting natural gas to hydrogen and carbon monoxide (for removing oxygen from the ore), but this deficiency is being rectified.

The Electro Thermic Reduction Co. erected a five-ton plant at Cascade Locks, Ore., to produce sponge iron of high purity. The plant was damaged seriously by fire last fall and is being rebuilt.

• **Room for Expansion**—The blue chip of the sponge iron plants is, of course, the 100-ton project that Republic Steel Corp. is getting under way in Warren, Ohio (BW—Oct.31'42,p77), which, incidentally, will produce the material in the form of briquettes "melting stock." It was laid out by Herman A. Brassert to be integrated with four others of equal capacity should their construction be deemed advisable later on.

The Bureau of Mines is considering conversion of idle ceramic tunnel kilns to sponge iron making. Kilns in Canton, Ohio, and Binghamton, N. Y., have been borrowed for this purpose.

• **Old Chinese Custom**—China has built two sponge iron plants with money obtained through lend-lease for a blast furnace. Various sponge iron processes have been in use in China for generations. Japan is known to have one 500-ton plant and is reported to have another. British money is behind a project under consideration in Canada to be located at Nanaimo, B. C., a seaport town on Vancouver Island. There is a better than even chance, however, that it will wind up as a blast furnace.

Appeasement on Prices

Resignation of Henderson and appointment of Brown will mean victory for those who want at least a dose of inflation. Now it's a problem of keeping values and wages from rising too rapidly.

Leon Henderson's resignation as chief of OPA is a victory for those who want a price control program without a backbone. It's a victory for Congress (particularly the farm bloc), for business men who have complained about OPA's hard heart and red tape, for labor, and all others who think they can beat the inflation game.

• **A Change in Personality**—Prentiss Marsh Brown, 53-year old ex-senator from Michigan who was plumped into Henderson's shoes, will take on the job about the middle of January. Unlike Henderson, Brown is neither argumentative nor cocky; he certainly isn't as tough.

The price-control situation has shifted from rigid ceilings to semistabilization by compromise and appeasement. Brown's strategy, at the start at least, necessarily must lie in the direction of trading off price increases for appropriations from Congress. If he has anything else in mind, his fate will be no different from Henderson's.

• **The End Came Quickly**—Pugnacious Leon's exit was a quickie job. It was cooked up within the space of a few hours, although Henderson was pretty sure a couple of weeks ago that the jig was up.

The farm bloc—continually yammering for different parity interpretations and uneasy about accepting subsidies in lieu of price advances on agricultural commodities—howled for his scalp. Property owners built up new squawks against rent control (notably the recent regulation requiring a down payment of 33⅓% before the buyer of a home can evict an old tenant). Retailers muttered against a new enforcement drive. Labor wasn't happy with wage controls, the companion to price control.

• **Fuel Oil Fiasco Hurt**—Worse yet, just as OPA's appropriation of $120,000,000 was running perilously low (indicating another tussle with a hostile Congress), the fuel-oil rationing program ran into a snarl (page 17). Failing to fathom the complicated mathematics of the rationing system, OPA's 4,000 local boards put their feet into it right and left.

In vain did OPA plead that lack of time prevented proper education. When Mayor Kelly of Chicago stalked into Washington with fire in his eye, claiming that the Windy City was on the verge of freezing stiff, everybody ganged up on Henderson.

• **Farm Bloc Springs It**—The dénouement was a reputed get-together between Secretary of Agriculture Wickard and the farm bloc wherein the latter was placated for a time with promises of a new price administrator and more liberal ceilings. A few hours later Henderson was a free agent.

Prentiss Brown in the interim was being groomed as successor. He talked quietly with a number of Henderson's henchmen to sound out their views (a process that at least in one instance was accompanied by a suggestion from Brown that higher ceilings might not be amiss). Trial balloons appeared in the press. When none of them was seriously punctured, Brown was in.

• **Lawyer and Banker**—Originally a lawyer, Brown served in the House of Representatives from 1933–37, and in the Senate from 1937 until his defeat at the polls this fall. He has something brand new for OPA—a practical business record. He was president of the First National Bank of St. Ignace, Mich., and vice president and general counsel to the Paulding Sugar Co.

As a freshman senator, Brown fought the Administration on the bill to expand or "pack" the Supreme Court in 1937. A moderate New Dealer on other issues, he became the wheelhorse for the anti-inflation program, including Emergency Price Control Acts of both 1941 and 1942.

• **Things to Watch**—In view of the circumstances leading up to Brown's new job, don't expect prices to hold as they have since the advent of the General Maximum Price Regulation. Expect some combination of the following:

(1) Relaxation of farm prices.

(2) Relaxation of processed food prices.

(3) Possible exemption of some commodities (perhaps luxuries and semi-essentials) from all controls.

(4) A tendency to negotiate ceilings to the satisfaction of producers and distributors.

(5) A smaller OPA setup in Washington.

(6) Revisions in rationing.

(7) A sweeping change in OPA's top-side personnel.

• **Phi Beta Kappas to Go**—Brown will most likely have to start without very many experienced field generals. The ranking OPA crowd, intensely loyal to Henderson, and crying like babies when their leader toppled, have tendered resignations. Brown probably feels he can do without a Phi Beta Kappa brain trust.

In the last analysis, OPA's oldtimers went down in the belief that their colors were still flying, and that there'll never

New price controller (about the middle of next month) will be Prentiss M. Brown of Michigan who lost his Senate seat in the November election.

Le another to equal Henderson. Their dervish-like fervor is supported by the fact that since the advent of General Max the cost of living has risen only 3.3% (including taxes), while the index of rents actually dropped 1.8% (chart, page 13)—a performance contrasting dramatically with experience in the last war.

• **Gigantic Job, Trifling Cost**—To its due credit, be it said that OPA's record on controlling prices was good—and tax cost was peanuts. Its current appropriation amounts to only $1 per civilian for the mammoth job of controlling prices and of rationing tires, autos, gasoline, industrial rubber footwear, sugar, coffee, and fuel oil.

But OPA never escaped a world of frenzy. With the advent of GMPR it was on slippery legal ground; lawyers came in by droves. With the lawyers came documents of tremendous length and complication. On the heels of the documents came brickbats from business men, and Congress jumped into the fight.

• **Program Revamped**—Henderson knew that the nation was more inflation-willing than anti-inflation resigned. But he figured he could make a run for it. When his appropriation was cut to pieces, OPA duly worked up a new plan consisting of (1) a cheap form of policing, designed to cover only the big retailers who do at least half of the nation's retail business; (2) fewer price increases, and then mainly only by OPA initiative; (3) more nation-wide identical price ceilings; and (4) a simplified form of publicity to be distributed through rationing boards. Meantime OPA promised to soft-pedal the lawyers and write its orders in English.

On paper the plan looked good. But it was predicated on the belief that the nation could be coaxed out of its hankering for a mild binge of inflation, and that business men and farmers would accept subsidies. It also had one very important omission: Too little provision was made for educating the local war price and rationing boards whose population of 235,000 school teachers and housewife volunteers was unaccustomed to a diet of legal orders as formally promulgated in the Federal Register.

• **Plans Just Didn't Work**—In the end, Henderson never could sell subsidies to anybody. Nor did the rationing boards grow wiser. Woe accumulated on woe until utter disaster struck.

This is the point at which Brown must take hold. He dare not use subsidies to ease the price squeeze. He must clean out the lawyers and economists. And he must give back to the business man the right to petition for higher prices—and get them.

This spells, plainly and simply, price increases. The handwriting also is on the wall so far as wage control is concerned. Thus Brown, in the initial stages, is up against resorting to appeasement without the creation of an irritating inflation spiral.

WARNING

The Price Control Act is still a law. The General Maximum Price Regulation and special regulations are still in effect. Don't tear them up just because OPA is slipping. No industry can afford to assume that a government regulation is not going to be enforced. Sometime, somewhere, when least expected, an OPA field enforcement official may turn up.

• **Appeasement Means a Rise**—Presumably Brown can, under auspicious circumstances, space the increases so that the price trend will bear at least some resemblance to an inclined plane, rather than a straight upspurt. But it is also apparent that, once this course is set, it can never be retraced. Each stage of the upswing will tend to preserve—and maybe augment—the lag between prices at the various distributive levels. Thereafter a freeze never again becomes a possibility without the subsidies that nobody seems to want.

Equally bothersome is the problem of rising consumer income, and the problem of draining it off without even the alibi that prices—hence the cost of living—are firm. Latest estimates indicate that there will be an inflationary gap of upward of $40,000,000,000.

• **Fewer Goods at Higher Prices**—If prices rise under these circumstances, distributors will surely be tempted to hoard inventories for speculative purposes. There will be continuous pressure, not only to absorb up to $40,000,000,000 by price increases, but to accomplish the absorption while offering fewer and fewer units of goods. This is roughly what happened in the last war, wherefore the over-valued stocks later had to be unloaded at ruinous prices.

Heavy taxation by Congress—that is, a really drastic drainoff—is problematical now. So is a more ephemeral solution: a bigger supply of civilian goods. Conceivably Brown could open some sluicegates by exempting from price control a batch of commodities and services less intimately associated with the cost of living. But it remains to be seen how far this strategy can go without also running into the difficulty of spiraling.

• **A Dangerous Choice**—Brown's job, in short, incorporates the dangers of getting burned by not offering enough relief to producers and distributors, and, conversely, getting burned by damaging consumers through price spirals and inventory hoarding. This isn't any easier than Henderson's attempts to slap a lid on everything.

As regards two special problems—rationing and rent control—even speculation is meager. Rumor persists that rationing will be divorced from price control, but there is no confirmation. OPA is really rationing's chore boy. It makes none of the decisions (these are left to WPB, to the oil and rubber agencies, and to the Department of Agriculture). Therefore some of the heat will be removed by transferring responsibility for alleged mistakes (except mistakes in educating rationing boards) to their source (page 5). Or the current OPA setup could be split, so that the faults of one operation wouldn't color the workings of the other.

• **Real Record on Rents**—Rent control, meanwhile, has long been an OPA pet. This division hung up far and away the finest record (so far as index numbers are concerned), and OPA felt that here was one field in which the consumer really gave Henderson his just credit.

Be that as it may, the run-ins with landlords were never-ending. Deputy Administrator Paul A. Porter's life consisted virtually of directing courtroom strategy and playing tough. OPA never lost a single major suit, and, more important, it never gave an inch to 4,000,000 bitterly complaining landlords.

• **Landlords vs. Tenants**—Here, then, is a field in which Brown will be up against a mighty chorus of landlords, and possibly a host of disgruntled tenants if the landlords get a break.

In the last analysis, the new task has all the sunshine of appeasement, but also all appeasement's thunderstorms.

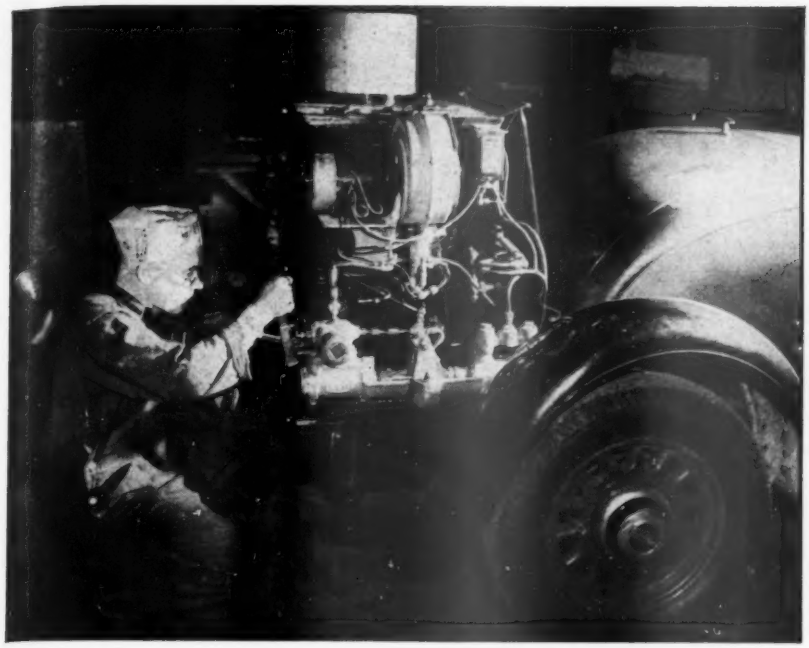
Outgoing OPA disciples, with due lack of impartiality, are already hailing the new setup as the Office of Price Elevation. The tag is exaggerated, but Brown cannot ignore its implications.

• **Unfinished Business** — Incidentally, OPA is leaving Brown a characteristic legal gift in the form of a half-started enforcement drive against big retailers. This includes charges against the Hecht Co. and Woodward & Lothrop (Washington department stores) that they violated price ceilings, plus a preliminary injunction—coupled with a request for a permanent restraint—against Montgomery Ward on similar allegations.

Meanwhile Leon Henderson will depart for a rest. He is a sick man. Afflicted with an old ailment of his back, he has been suffering from weakening eyesight, increasingly jittery nerves.

• **But Leon Is Down, Not Out**—Dopesters contend that when Henderson returns to Washington, he'll get a position in FDR's unofficial cabinet. But this is largely speculation, prompted by the fact that an outgoing New Deal executive is customarily never long without another New Deal job.

What really looms ahead for the burly, two-fisted ex-OPA chief, nobody—more than likely including Henderson—knows.



PLYMOUTH STEAMER

With gasoline more strictly rationed than ever, one motorist asked the American Steam Automobile Co., West Newton, Mass., to convert his Plymouth coupe to oil-fired steam operation. Here a mechanic puts finishing touches on the boiler equipment mounted abaft the car's luggage compartment. Under the hood is a steam engine. If fuel oil becomes as scarce as gasoline, and if he can get priorities on a few necessary conversion materials, the owner can run his car with coal.

Gas Ration Hit

National Survey of U. S. Rubber Co. service departments indicates lack of cooperation by the average motorist.

That the average motorist does not seem to be cooperating wholeheartedly with the procedure and intent of the gas rationing and rubber conservation plan is the conclusion of a report by United States Rubber Co., based on a survey of its field engineering and service departments.

• **Tinged With Misunderstanding**—The reaction to gas rationing in all points was said to be tinged with misunderstanding, resentment, and outright lack of cooperation. Attempts to develop ride-sharing were reported successful only on the East and West Coasts, and in scattered Southwest and Central West areas.

Some phases of the picture are better, however. Tire care was said to be generally improved, except in the Middle West. Speed has been cut down. The service experts reported that average mileage expectancy for tires, to epitomize sectional differences, vary all the way from 7,000 to 8,000 miles in Texas, up to 25,000 to 30,000 miles in such Midwest centers as Chicago and Detroit. Factors governing this wide variance are temperatures, topography, and types of roads.

• **Felt Penalized**—Sectionally, the Southeast feels better now, having believed it was penalized unfairly when the East Coast was the only rationed area. Eastern acceptance is wholehearted, tinged by resentment at chiseling. Central Western objections are widespread, resulting in lack of cooperative efforts.

Middle Western areas do not seem to understand the need for gas rationing. West Coasters are giving full support. Southwestern states are definitely antagonistic to gas rationing, evidently due to the nearness of the oil fields.

• **Overloading Discussed**—A roundtable discussion by the field men followed the gathering of this formal report. Overloading of trucks was discussed, and notable reductions were generally reported by representatives from Cleveland, Detroit, Denver, Buffalo, Spokane, Chicago, St. Louis, and San Francisco.

It was said that many truckers are having troubles, not because of overloads but because of poor load distribution. This was blamed on an insufficiency of capable shipping dock help.

This Crisis in Oil

Everybody draws a little blame as East economizes on gas and Middle West faces prospect of heatless homes.

Bureaucratic bungling and the old story of too little too late are responsible for the desperate plight of fuel oil users in the Middle West and all gasoline and oil consumers in the Atlantic Coast states.

• **Distribution Breakdown**—The shortage of gasoline in the East is real enough—what with temporary invalidation of all but commercial cards last week—but it need not have been so severe if several branches of the government had been a little more far-sighted. In the Midwest, the fuel oil trouble is chiefly due to red tape in rationing and the failure of officials involved to appreciate the realities. Now the whole oil distribution system has broken down and not much can be done, Economic Stabilizer Byrnes's efforts notwithstanding.

Popular revolt and promises of congressional investigations won't produce more oil. The Midwest probably could be kept warm by a suspension of fuel oil rationing, but this would mean even less fuel oil for New England and might precipitate something like a civil war.

• **Ickes Was Partly Right**—Blame can be shared by Army, Navy, Nelson, Henderson, Eastman, and others, not entirely exempting Ickes. Ickes was generally right in predicting shortages long ago and in outlining what should be done to prevent them, but, publicly at least, he remained too optimistic that things might work out all right and didn't bluster much about failure of others to take his advice.

Main trouble was that most officials just couldn't believe there ever could be such a thing as a shortage of oil. When Ickes wanted to build two pipelines to the East 18 months ago, Nelson turned thumbs down, supported by Navy and Maritime Commission, which said tankers were preferred. Nelson belatedly authorized one pipeline, which won't be completed until next midsummer, but is still twiddling his thumbs over Ickes's request for a second.

• **A Case of Hindsight**—Even after the war started, the Navy didn't anticipate the submarine activity along our East Coast, with the result that Hitler's U-boats knocked out tanker shipments last spring. Regardless of this, Army and Navy kept installing new oil burners in their eastern posts; WPB belatedly authorized small amounts of steel for converting oil burners to coal; and nobody put real pressure on fuel oil users to change over.

OPA refused to let eastern oil prices

rise to cover increased cost of rail shipments, and important volumes didn't move by tank car until Reconstruction Finance Corp. provided a subsidy. OPA still refuses to increase fuel oil prices to compensate refineries for making more of it in proportion to the gasoline output, which is one important factor in the Midwest fuel oil shortage.

• **Homeowners' Troubles**—OPA ration plans for fuel oil were announced too late, were too complicated for householders and volunteer ration board staffs to handle, and require so many small deliveries and so much paper work that dealers can't distribute oil fast enough when they have it and customers have their coupons. The system just was not geared to the realities of fuel oil distribution and the capacity of the rationing machinery.

Eastman's Office of Defense Transportation acted like a disinterested observer—left it to Ickes to work out plans for speeding train-load lots of tank cars, diverted tank cars to other products that Ickes said were less essential than oil, and imposed tire-saving restrictions on oil delivery trucks, which didn't help conditions any. The oil barge construction program was tossed around among half a dozen government agencies.

• **Military Lapse**—To cap the climax, ever since the African campaign started, Army and Navy have been cleaning East coast bulk plants of virtually all supplies and have diverted convoys of tankers bound for eastern ports. A lot of oil is needed in North Africa and East Coast ports are much nearer than those on the Gulf or in the Caribbean, but one would assume that Army and Navy knew about the African venture before it started and might have known they would need oil; apparently they failed to plan properly—or to tell Ickes of their plans—because their requisitioning of the meager civilian oil supply in the East left everybody else short. If war plants shut down for lack of fuel and transportation, Army and Navy will probably blame Ickes.

Ickes's new powers as Petroleum Administrator for War may help the situation some, but he should have had these powers months ago. Even so, he can't do anything about the Army, Navy, or OPA, and the extent to which he can use his apparent powers to give directives to such other agencies as ODT remains to be seen.

• **Mixup on Gasoline Sales**—Ickes is tough enough himself but has delegated much oil work to his deputy administrator, Ralph Davies, who is timid and hesitant; for example, last week he caused a rush on filling stations by holding up overnight the order to halt gasoline sales in the East because he couldn't make up his mind on the wording of a press release giving the public the reasons for the action—so the public became more confused than ever.

SECOND LAP

With the first link of the Big Inch oil pipeline from Longview, Tex., to Norris City, Ill., virtually completed, pipe sections by the trainload are being welded for the second stretch to Phoenixville, Pa. There branch lines will tap the big main to guide crude to hungry refineries in Philadelphia and Bayonne, N. J. Despite unskilled labor shortages and pumping station installation troubles, the first stretch should be delivering 100,000 barrels daily by Feb. 1. The entire line, scheduled for midsummer completion, will eventually pump 300,000 barrels a day.

COAL FOR NEW ENGLAND

The heating situation being what it is due to the eastern fuel oil shortage, Joseph B. Eastman's Office of Defense Transportation intends to take no chances on coal deficiencies. As a result, General Order ODT has just been revised to tighten control over coastwise vessels handling coal for New England.

While pointing out that there is at present no trouble over solid fuel in the Northeast, the ODT makes it clear that it wants to be in a position to care for "bare spots" which may develop. The situation is touchy because about half of the colliers previously serving this trade have been diverted to other routes.

The order, in general, warns vessels that they are on call to operate in any manner and into any ports designated by ODT. More specifically, the lines are told to get together on plans for joint action and for outright pooling.

Rationed Arctics?

Rubber footwear industry, already hemmed in by cuts in crude content, faces rationing of its civilian products.

Because Rubber Boss Jeffers might cross them up, WPB and OPA are not disposed to make any predictions concerning the rubber footwear situation. Rationing of all types right down the line looks inevitable, however. (The rationing program ordered Sept. 29 by OPA in Ration Order No. 6 covers only industrial types used by miners, lumbermen, farmers, and certain factory workers.)

• **Crude Content Halved**—Conservation, which includes limits on the amount of crude and reclaim rubber that can be used in a given article, curtailment of the number and styling of items in the line, and substitutions to extend the supply of materials apparently have gone about as far as is practical at this point.

Beginning last Feb. 11, when WPB inaugurated the Victory line of civilian rubber footwear, the crude rubber content of all items in the line has been reduced, until now it stands at less than 50% of its prewar level. The range of styles in the line has been cut to about 20 items, from over 200 styles in peacetime production. Although nothing particularly sensational has been done in discovering new extenders and fillers, manufacturers are making more use of them than in the past, principally carbon black and ground cork.

• **Separate Sales Opposed**—WPB apparently is bucking stiff opposition from the industry in setting up further controls. A case in point is the stitched replaceable outer sole developed by the Cambridge Rubber Co., Cambridge, Mass. OPA has fixed a price for this product (Order 2 under Maximum Price Regulation No. 132), but the industry is pretty solidly against replaceable soles. Rubber footwear makers have a lot of arguments about cements and lack of serviceability.

The Cambridge process makes use of stitching and a vulcanizing process. The company claims the job can be done by the corner shoe-repair man. It would, of course, accomplish a real saving in rubber, because it is the sole that wears out first. Cambridge tried to sell it to the Army, but evidently it wouldn't meet the rigid tests. Civilian use could be served by lower standards.

• **Reclaim Controlled**—WPB's most recent action on rubber footwear is to bring reclaim as well as crude under strict allocation control. With reclaim being used so extensively in Victory tires, it is almost as critical at this point as is crude. Under Supplementary

STEER SURGEON

With wholesale meat price ceilings embracing primal cuts as well as sides, quarters, and whole carcasses, Office of Price Administration clinics are now on to instruct wholesale butchers where to slice. To avoid ceiling evasions—possible where expensive cuts edge over into cheaper parts—OPA has charted carcasses for uniformity. Paul A. Goeser, OPA specialist, shows New York butchers where to hack to meet the new rulings.

Order M-15-b, the manufacturer is limited to a 45-day working inventory of reclaim. His existing inventories are not covered by the order, which will apply when he goes to the rubber adminstrator's office for his next allocation.

Rubber footwear is under special price control by OPA (Maximum Price Regulation 229). Dollars-and-cents prices have been set, both at wholesale and at retail. The retail prices fall into one of five classes on any given item, depending on prices that the retailer paid to the supplier and discounts allowed.

• **Standards Assured**—Pricing also is used by OPA's Standards Branch to insure minimum standards of quality. To get a price adjustment of his line, a manufacturer must submit specifications and, in many cases, samples for testing. The desks of the footwear men in the Standards Branch overflow with rubbers and boots that are to be tested for classification. Threat of a lower price, if quality doesn't come up to minimum standards, acts as a pretty good check on wartime rubber footwear.

Rationing of industrial rubber footwear includes six general classifications. These types are rationed to the individual consumer or to a company purchasing agent buying them for employees' use. The purchaser applies at his ration board for a certificate which he presents to the merchant. Purchasers are requested to turn in a worn-out pair of boots at the time of purchase, but it's just a request.

Butter Squeeze

Army and lend-lease put the bite on just when production is at its annual low and purchasing power spurs demand.

Butter makers foresaw months ago the butter shortage that only now has burst on an unsuspecting public. Curtain-raiser on the shortage was the Nov. 21 WPB order freezing half the storage stocks of Nov. 6 in 35 principal markets to insure adequate supplies for military and lend-lease uses—a move that butter men conceded to be smart since otherwise there wouldn't have been any storage butter left by Jan. 1. As it is, Dec. 1 storage stocks are down to 45,593,000 lb.—lowest point in ten years—compared with 106,891,000 lb. on the same day a year ago. Since most of this is included in freeze order, civilians are getting practically no storage butter at all.

• **Bad Timing**—Chief reason for the plunge from last year's butter surplus to the present low is the suddenly increased demand coming at a time when production is at its lowest ebb seasonally. Milk production rises slowly during winter months reaching its peak in June. Consequently 43% of the nation's annual butter supply is produced during June, July, August. From then on, the public depends on storage butter to supplement the current make until a surplus begins to accumulate again the following April.

This year's butter production is only 4% below last year's and is 5% above the normal of 1,711,000,000 lb., but the sale of butter always follows the curve of wages closely. The present jump in purchasing power has increased demand for butter from 15% to 25% above normal according to the American Butter Institute. Retail ceilings have permitted many civilians to continue buying butter who would otherwise be squeezed out by rising prices. The increased number of men in the armed forces has also increased demand for butter, for while the average American adult eats about 17 lb. annually, his consumption as a soldier is 40 lb. Lend-lease shipments heretofore have been small in comparison with current estimates of 20,000,000 lb. monthly.

• **When 50% Is 75%**—The 35 markets included in the WPB freeze held about 80% of the country's stored butter—62,000,000 lb.—as of Nov. 6, but by Nov. 21, when the order was announced, stocks had dropped to around 42,000,000 lb. Hence, the order, theoretically freezing 50% of the butter, actually tied up about 75% of current stocks—somewhere between 30,000,000 and 35,000,000 lb. In some markets, Chicago, for example, it froze practically all the butter in storage.

Since Army needs come first, from now until next spring, civilians are dependent on what they can get of the current make of butter, which even in normal times isn't enough to supply demand. Caught between limited supplies from creameries on one side and yowling customers on the other, butter distributors are praying for early government rationing.

• **Trade Tries Rationing**—Meanwhile they're limiting retail outlets to anywhere from 25% to 75% of normal requirements. Even in Chicago, hub of butter business, dealers are getting only about 50% of their usual allotment and are passing this ration along to their customers. Chain stores limit butter purchases to 1 lb. per customer, but small outfits cut the ration to ½ lb., and many limit this to customers who purchase other merchandise.

In the East, butter eaters are even worse off, for Chicago distributors, regularly supplying New England, New York, and the Atlantic Coast area, say they can supply only about 25% of the usual shipments—50% at the most. Some creameries have provided their restaurant customers with signs urging diners to limit themselves to one pat of butter. And some restaurants, particularly in the lower price range, not only are refusing their customers an extra pat but also are denying them any butter at all.

• **Break for Oleo**—A corollary to the butter shortage is the record-breaking run

on oleomargarine, but oleo holds no promise of making up for the lack of butter. Manufacturers are already producing at top capacity but still cannot meet the demand, and some of this production is earmarked for other than civilian consumption early. Thus, for example, Agricultural Marketing Administration has already called for offers on 40,000,000 lb. of colored oleomargarine, an amount comparable to the entire October production of 45,465,000 lb.

Sirup Grows Up

Corn is leader in a race which saw 1942 exceed 1941 production by 60,000,000 gal. of all types of sirups.

Apple sirup is about to become a substitute for hard-to-get sugar and glycerine as a binder for cigarette tobacco. Production is only beginning to reach a commercial scale, but it looks promising.

• **Used in Virginia**—The sirup is made simply by boiling apple juice to concentrated form. Apple growers in and about Winchester, Va., have pioneered in the field and are supplying neighboring tobacco firms.

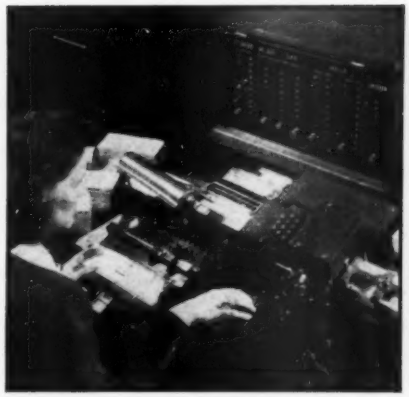
Sirup production in general, from maple to sorgo, has increased substantially since war began. This year we have had about 222,000,000 gal. of sirups, molasses, and honey as compared to 162,000,000 in 1941. The biggest increase in any single type was in corn sirup which went from 109,000,000 gal. in 1941 to 175,000,000 this year.

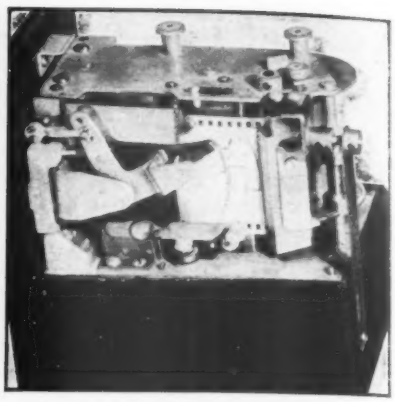
• **Sugar Value Low**—If maple and corn sugars are included in the figure, the total increase in sweetenings supplemental to cane and beet sugar is roughly equivalent to 288,000 tons of sugar. But since the supply of sugar has been cut about 2,500,000 tons by the war, the entire output of the sirup industry cannot begin to make up this huge deficit.

Corn sirup production is expected to fall back to about 150,000,000 gal. next year because repairs and replacements on machinery that has been working 24-hour shifts this year won't be forthcoming. Labor shortages also loom.

• **Million-Gallon Gain**—Maple sirup production, because it entails so much hand labor, and because metal buckets (by far the most satisfactory type) are hard to get, is not expected to reach any astronomical figures. Last year's production was about 1,997,000 gal.; this year it rose to 2,905,000, but the rate of production cannot be maintained.

Farmers who grow sorgo and cane can get bigger returns by concentrating on crops that the government feels are more important.





ROBOT RADIO RESEARCH

Mechanical measurement of radio listening habits took one more step toward reality last week when the A. C. Nielsen market research company announced that it would make its Radio Index Service available on a nonprofit basis to the radio networks, a limited number of stations, and 15 advertisers together with their advertising agencies. Seven advertisers and nine agencies already support the project. The Nielsen index is based on the records obtained from one thousand audimeters, which automatically record on tape every turning of the dials on the radio sets to which they are attached (BW—Dec.7'40, p38). The audimeter (right) was invented six years ago, and since Nielsen obtained patent rights, $1,000,000 has been expended in its further development—a large part of it to perfect machinery (left) that automatically will decode the tape and tell researchers just what programs were listened to at every turn of the dials. Nielsen contends the thousand units now installed between Philadelphia and St. Louis will provide an adequate cross-section of listening.

Wage Tax Cut

Philadelphia's 1½% income levy cut to 1% after three years of collections lift the city out of the red and leave surpluses.

After three years of taxing all incomes at the rate of 1½% (BW—Mar. 9'40,p36) the city of Philadelphia last week acceded to pressure from all sides and lowered its 1943 levy to 1%. Most Philadelphians are convinced that a reduction or complete elimination of the tax should have been enacted long ago.

• **Sustained in Court**—From the time it was invoked on Jan. 1, 1940, the average person considered the tax unjust, but its constitutionality was upheld in a series of suits in both municipal (BW—Jul.12 '41,p64) and state (BW—Mar.21'42, p32) courts. Each decision seemed to rest on the equality of the levy.

It is collectible from all wage and salary earners, resident and nonresident, whether they be city, state, federal, or private industry employees. Seamen who receive their pay in Philadelphia after completing a trip must pay. Even WPA workers were not exempt.

• **Deficit Cut**—A man with ten children earning $35 a week has the same portion of his salary deducted by his employer as the $25,000-a-year man. Net profits of businesses and professions likewise are taxable, as are goodwill offerings to priests and other clergymen for baptisms, marriages, funerals, etc.

Although the levy was introduced as a temporary measure, the ordinance did not limit it to any certain period. The city was in the red at the time, and the 1940 receipts of $16,400,000 convinced city officials they had a good thing. The deficit that year was cut to somewhere over $2,500,000.

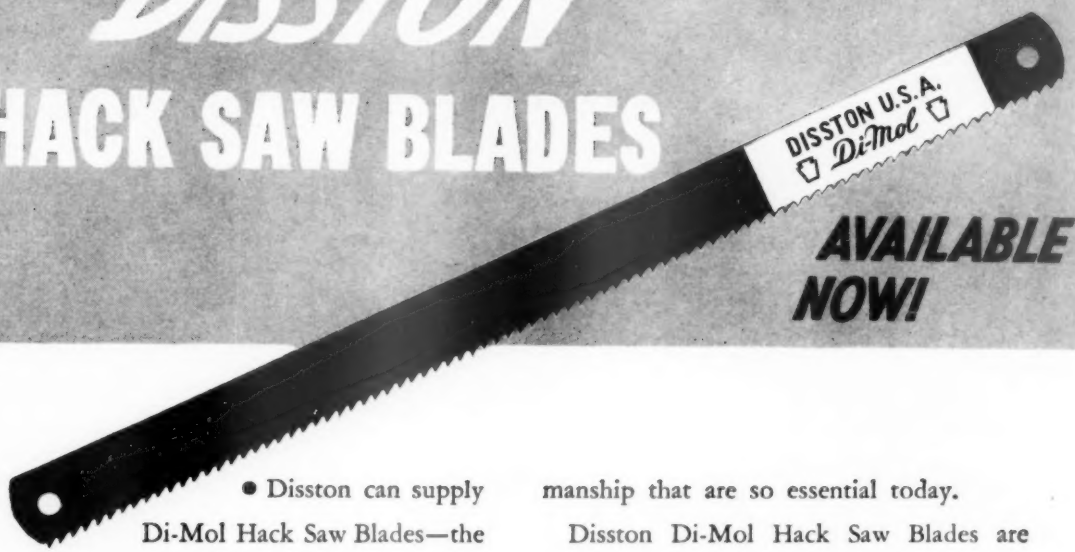
• **First Surplus**—In 1941, collections grew to $18,377,901, passing all estimates by $1,319,584, and the city had its first cash operating surplus in 15 years. Estimated intake for the full twelve months this year was exceeded at the end of October, and a total revenue of over $26,000,000 is believed likely due to the influx of war workers, higher payrolls, and the transfer of several U. S. bureaus here from Washington.

Numerous federal employees have been fined $100 and costs, and on one occasion a Navy Yard worker was put in jail over the weekend until he paid up.

A surplus of $5,494,839 in the city treasury enabled council to balance the $88,082,707 budget for 1943, despite provisions for $3,737,000 in wage increases to city and county employees next year.

Your Distributor has

DISSTON HACK SAW BLADES



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In recent tests Di-Mol Blades lasted 7 times as long as ordinary blades! Not only does fine steel give them greater life, but careful Disston manufacture makes them faster working, more accurate, and more dependable in quality.

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Disston Di-Mol Hack Saw Blades are recommended for speed and precision in general machine shop operation . . . High Speed Steel Blades for the same advantages in cutting stainless steel and extra-hard alloys.

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GET YOUR SCRAP INTO THE SCRAP!

Fugitive Fleet

Great Lakes vessels not needed for ore shipping are being shifted to salt-water ports via inland routes.

War work of the Great Lakes is mostly iron ore movement (BW—Oct. 10'42,p18). With this in mind, the War Shipping Administration has been tracking down on the Lakes, and floating out to salt water, cargo vessels not necessary to the heavy movement of ore, on the theory that one boat this year may be worth several next year.

• **Three Routes**—Transfer of tonnage from fresh to salt water has been confined mostly to package freighters. They have moved on three routes: St. Lawrence waterway, New York Barge Canal, and through the Chicago Drainage Canal and the Illinois waterway to the Mississippi and the Gulf of Mexico.

During World War I, the only Great Lakes outlet to the ocean was the Welland Canal and the St. Lawrence. The limiting factor then, as now, was the size of locks at the Lachine rapids, built for vessels no larger than 253-ft. keel, 43½-ft. beam, and 14½-ft. draw. Cargo carriers were built in lake shipyards, then cut in two, transversely, so they could move through the locks, and later put together again. About the time the war ended, ship architects were preparing to cut some big vessels both ways, transversely and longitudinally. Others that nearly fit the specifications of the locks were rolled on one side in order to squeeze through.

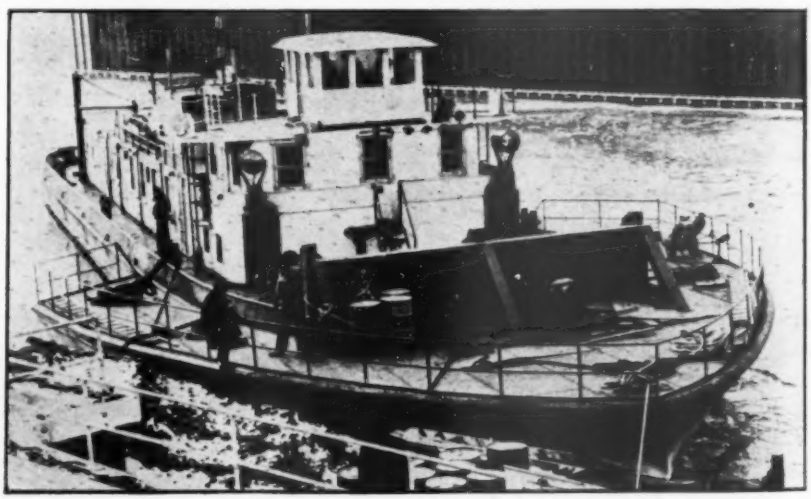
• **Alternative Route**—In recent years an alternative route has been developed—the New York Barge Canal, thence by way of Albany to the Hudson River and New York harbor. This route will pass a 300-ft. boat drawing 12 ft., provided its superstructure is not more than 15 ft. above water.

Traffic over the third fresh-to-salt water artery from the lower end of Lake Michigan has been subject to two limiting factors: low bridges at Chicago (the lowest is 17¼ ft. above water level) and the 9-ft. channel in the waterway below Lockport, Ill.

• **Bridges Raised**—Fortunately for the vessel movement, unusually generous rainfall last season kept the waterway above the nine-foot mark all summer. Bridge clearances are being raised (BW—Oct.31'42,p56).

Vessels are towed down this waterway without cargo. To get them under the low bridges, it has been necessary to lop off superstructures and, in many cases, load heavily with sand or water ballast to bring them lower into the water.

• **Dockage Scarce**—After a week's journey down the Mississippi the problem is to get dock space—dry docks are unnecessary—and fit the vessels out for ocean service. Besides rebuilding the superstructure, about the only other work necessary is substitution of surface condenser units for the jet condensers commonly used on fresh water.



BIG JOB FOR FERN

Normally locked by ice from Jan. 1 to early March, this winter the Illinois Waterway is to be kept open by the Coast Guard's new ice-breaker, Fern. Thus numerous types of naval craft being constructed on the Great Lakes will have an open channel to the Gulf; so will upstream movements of corn, coal, and other important commodities. Built at the Missouri River town of Blair, Neb., the 12,000 hp. diesel-powered cutter has one unusual feature—an Amsterdam prow, which is widely used in Holland to keep canals open but has rarely been seen in the United States.

"STOCK" EXCHANGE

In the eyes of Selective Service, one draftee is worth 16 milk cows—which is four more than the War Manpower Commission's evaluation (BW—Nov.14'42,p96). The new, and superseding, rate of exchange was evolved by Selective Service as a guide to local draft boards in determining whether a registrant shall be classified II-C or III-C (necessary agricultural worker).

Selective Service advises local boards to require 16 "war units" for the deferment of one agricultural employee, and defines a war unit as a measure of production of essential farm products. For this purpose, one war unit is equal to one milk cow, or 20 feedlot cattle, one acre in apples, five acres in dry beans, 15 acres in wheat, etc.

Rather than rely on the mathematical precision of several thousand draft boards, Washington fixed a conversion factor for each item of agricultural produce or livestock. Thus, each hog has a value of .05 of a unit; an acre of castor beans is worth .33; an acre of belladonna or digitalis is worth 2.50; an acre of corn is worth .20. The list covers the entire range of essential farm products.

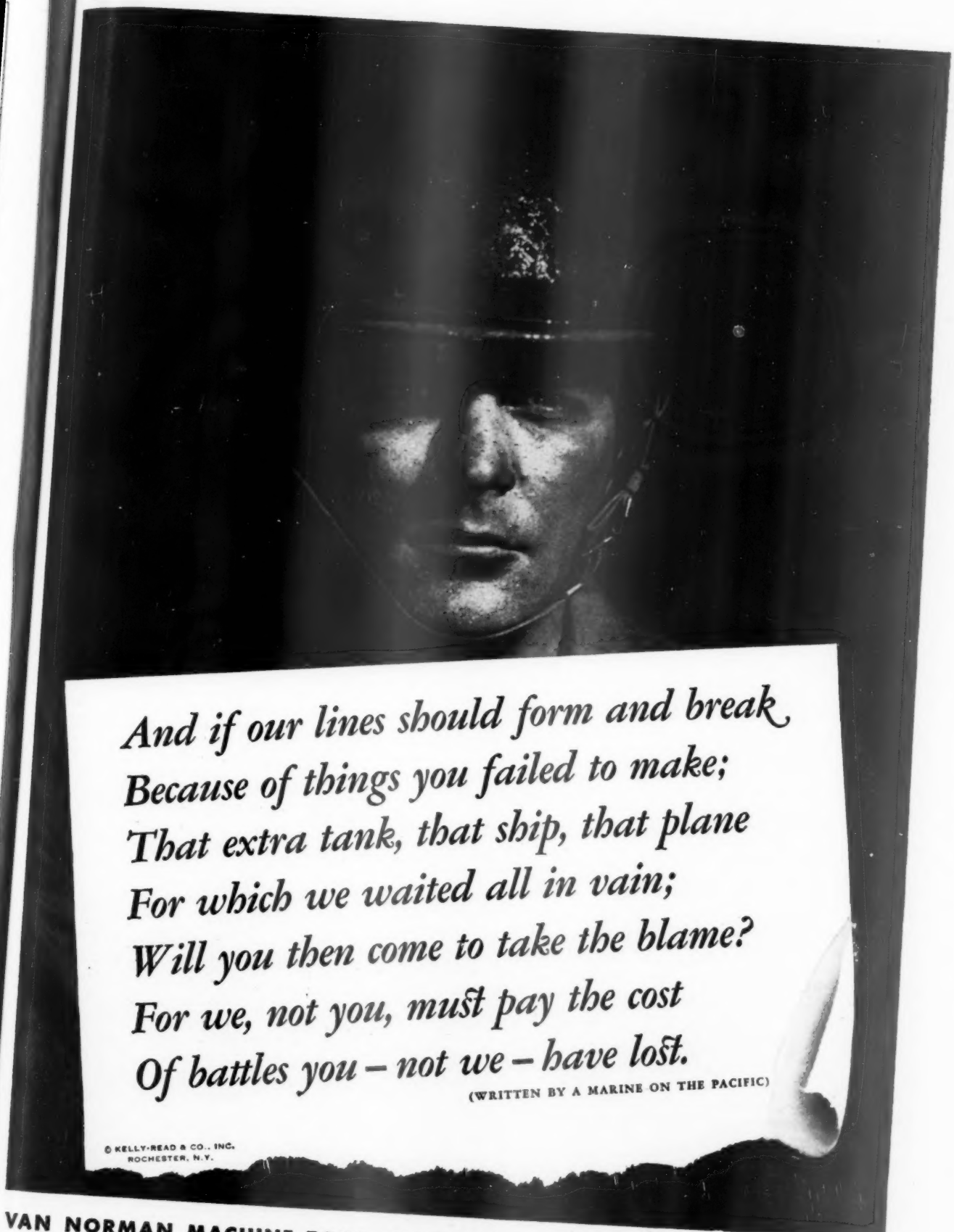
Dealers Worried

On top of their other ills, auto men have lost 75% of their mechanics since January; ODT views supply as critical.

Automobile dealers, first among retailers to be seriously affected by wartime scarcities, have developed a new illness of major proportions: shortage of manpower, specifically mechanics.

• **Approaching the Minimum**—This is hardly news to other merchants who have advertised their heads off for employees to tide over the Christmas rush (one Pittsburgh department store reputedly spent $400 in classified advertising and got four or five answers—all duds). But the auto-mechanic shortage is no seasonal item. It's so bad that the Office of Defense Transportation has issued a publicity release saying "the number of automobile repair mechanics left in the nation's garages and repair shops is approaching about the minimum which will be needed to maintain war-essential truck and passenger car transportation. . . ."

Furthermore, it now develops that the



VAN NORMAN MACHINE TOOL COMPANY • SPRINGFIELD • MASSACHUSETTS

If you would like copies of this epic poem in poster size we shall be glad to supply them without charge

shortage of manpower is not entirely the result of natural economic laws. What has aggravated the situation is that the local offices of various government agencies are accused of having coerced some of the mechanics into taking war jobs on an "either or" basis—either they take the war job, or they get snatched off by the draft board.

• **Losses Tabulated**—Documentation of the labor shortage this week got the benefit of statistical backing when the National Automobile Dealers Assn. computed the results of 1,600 dealer questionnaires. Here is what it found:

	Average No. Per Dealer
Mechanics employed, 1941	12.2
Mechanics lost, Jan.-Nov. 1942	9.1
Mechanics remaining Nov. 1942	3.1
Plus mechanics hired Jan.-Nov. 1942	3.6
Total mechanics, Nov. 1942	6.7
Net loss of mechanics	5.5
Estimated number of additional mechanics needed to maintain business properly	3.5

• **Where They Went**—The further fate of the average 9.1 mechanics per dealer lost between January and November was as follows:

Entered armed forces	2.0
Transferred to war industries	5.0
Lost for other reasons	2.1

Time was when an auto dealer and his mechanics worked on a 60-40 basis. That is, on repair and service jobs the dealer kept 60% of the intake, giving the mechanics an average 40%. Today, say the dealers, this is no longer a workable arrangement. OPA has set a ceiling on services, which means that the mechanic's 40% is too low to keep him from migrating to more remunerative jobs.

• **Squeeze Play Charged**—To top it all off, two-thirds of the dealers surveyed reported cases of employee coercion by government agencies. Some months ago the U. S. Employment Service had been accused of permitting coercive tactics by its local boards, a charge USES denied. Auto dealers continue to believe that USES and the draft boards are working out a squeeze play that deprives them of manpower.

Solutions to the manpower problem are practically nil. ODT has recommended an educational campaign, but it may be too late for that. Educational campaigns have been recommended before by intraindustry advisers, never got to first base. In those early days, there was a distinct feeling that mechanics were more valuable to war plants than in garages.

• **Dealer Mortality**—Very likely the manpower shortage will affect auto dealer mortality (BW—Oct.17'42,p56). How much he will be affected is hard to say, because nobody seems to agree on how precarious the auto dealer's situation really is.

THE WAR—AND BUSINESS ABROAD

Economic Battle Lines

Even before the conflict in Tunisia is fairly joined, the United Nations have their relief and materials missions throughout North Africa and in all the nearby neutral nations.

Winter in North Africa is wet and cold—cold enough for wool underwear and blankets at night. By day the mud remains, but metal equipment becomes searing hot in the sun that toughens troops for battle.

As opposing armies prepare for the showdown in Tunisia, the United Nations are following through on the economic front behind the battle lines. The money problem, never more than a technicality under occupation conditions, has been temporarily settled (page 31); lend-lease goods are pouring into Morocco and Algeria to quiet civilian clamor (BW—Dec.5'42,p86); and now an economic mission, to administer distribution of these goods and to survey needs, is in Africa.

Officials on the Ground

Settling, also temporarily, the confusion of authority expected to attend the handling of Africa's economic rehabilitation, the mission represents the State, Treasury, and Agriculture Departments, the Board of Economic Warfare, and the office of Lend-Lease Administration; it is matched by British representatives of parallel official bodies. Robert Murphy, Chief Civil Affairs Officer on the staff of General Eisenhower, is top man.

Spain, too, blows hot and cold these winter days, and Spanish Morocco sits atop Allied communications between French Morocco and Algeria—separated from the main rail line by a 6,000-foot mountain range. Forces massed in Spanish Morocco could sweep east and south across the Charef river to cut this line before it enters Algeria, or in the west could follow the main railroad along the coastal slopes south toward Rabat, key Allied port and railhead.

A Stumbling Block

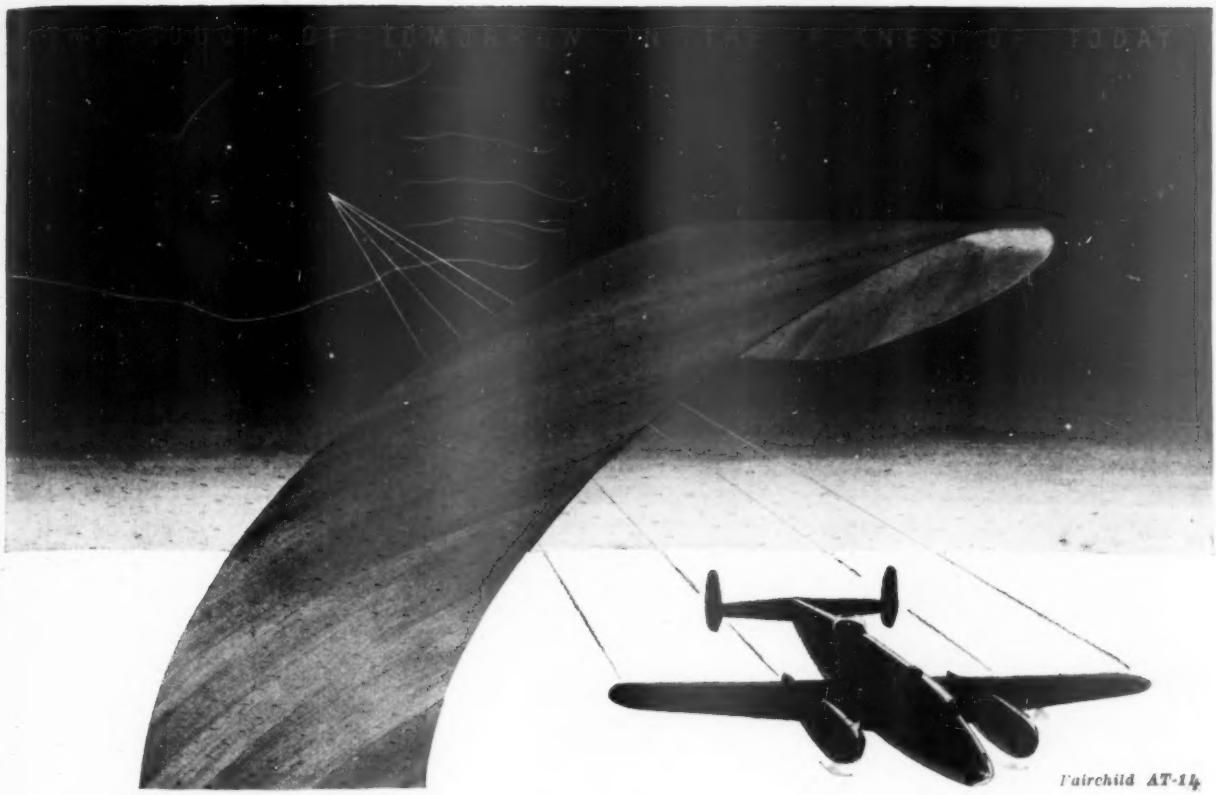
This is the worst that can happen. Spain may also be "attacked" by Germany and, while the Wehrmacht slashes south toward Gibraltar, counter any Allied attempts to reach and protect Gibraltar from Africa.

Although the full story of American and British economic warfare in Spain must still remain untold (BW—Dec.19 '42,p73), published testimony by Jesse Jones and Henry Wallace before the Senate Banking Committee throws new light upon preclusive buying in neutral nations.

Every surplus ounce of essential raw

DESERT (SPELLED M-U-D)

Knee-deep muck is no mirage on the Libyan desert in the rainy season, but it can't stop these airfield scrapers sloshing westward to prepare bases for Allied planes hammering at Axis positions from Tripolitania to Tunisia.



Fairchild AT-14

Fairchild Creates a Method of Moulding Airplanes Out of Non-Strategic Material

Even before Hitler marched on Poland, Fairchild foresaw a possible shortage of aluminum for military aircraft manufacture and undertook the development of a new aircraft material. The result was a practical process of moulding layers of wood veneer into complex wing and fuselage curvatures, fusing them with plastic resins under heat and pressure. Fairchild named the process Duramold.

In presenting the Duramold process to the Government and to the aviation industry for use in speeding military aircraft manufacture, Fairchild offered not only a new and efficient, lightweight substitute for metal—equally strong, economical, readily obtainable—but also a well-developed process of making that material and a practical method of assembling it in mass production.

Duramold is now being used, not only in Fairchild planes, but in many of the other great planes which are helping win this war*. . . releasing ton after ton of precious aluminum for other implements of war. Wings, empennages, expendable gas tanks—even whole planes are today being made of Duramold . . . flying smoother and faster because of their flawless Duramold surfaces.

Duramold is but one more Fairchild contribution to aviation and the war effort, rivalling in military value the famous Fairchild Ranger engines and Fairchild planes whose performance has earned the respect of Army and Navy flying personnel of the United Nations. Other Fairchild projects are rapidly becoming realities of immense importance to the war effort. Fairchild engineering foresight is not only investing today's planes with "The Touch of Tomorrow". . . it is doing it at a time when the world needs it most!

**The Duramold process is licensed under patents to Howard Hughes and the Haskelite Manufacturing Corporation. They as well as Fairchild are in production on parts for such companies as Curtiss, Martin and Vultee.*

FAIRCHILD ENGINE AND AIRPLANE CORPORATION
30 ROCKEFELLER PLAZA, NEW YORK

Ranger Aircraft Engines Division, Farmingdale, L. I. • Duramold Division, New York, N. Y. • Fairchild Aircraft Division, Hagerstown, Md.

materials likely to reach the Axis from Spain, Portugal, Turkey, and other neutrals is being bought by 25 offshore agents of the BEW who have spent $32,000,000 in the last eight months. To secure critical materials—tin, tungsten, mercury, and chrome, for instance—prices 10 or 20 times the market value have been paid. To continue and expand this activity, the BEW is sending 25 additional workers into the field.

Drawing on Stocks

From this account, it is clear that German seizure of Spain or Turkey would give the Axis not only new sources of war essentials but also stocks belonging to the United States, unshipped for lack of cargo space. Long-standing doubt concerning Spain's eventual position in the war is probably a guarantee that few efforts have been spared to keep these stocks at a minimum.

Constant removal, on the other hand, is well nigh impossible both because of the condition of Spain's transport system and because ships are few and far between. In addition, the process must be a continuing one, in pace with output.

Countries Ransacked

If, as has sometimes been the case, the surplus has been divided without prejudice or favor between the Axis and United Nations' purchasers, the quantities run into hundreds of thousands of tons. In the case of citrus fruits, either by default or by intention, removal has not been attempted, and the Axis (formally getting only 40% of the export total) now takes the bulk of this crop.

In this global war even neutral nations, isolated and depressed by the crossfire of battle, are ransacked by agents of contending governments for their economic surpluses.

Lend-Lease Facts

Lump-sum figures cover up real size of U. S. aid to Allies; total shipments now are at rate of ten billions annually.

Few people realize that lend-lease is not a fair measure of U. S. industry's total contribution to the war efforts of our Allies (BW—Nov.21'42,p13).

• **How the Totals Compare**—Goods exported under lend-lease reached a value of $4,685,000,000 through October, 1942, a total still below cash purchases—$6,450,000,000—of Allied nations during the same period. Total lend-lease aid (including services) amounted to $7,496,000,000 through November, 1942. Current shipments of paid-for goods are still leaving the country at a monthly rate well above $200,000,000, or more

LIFE IN PORTLAND, OREGON HAS CHANGED! . . .

Yes indeed, you wouldn't know the old place now! Leisure hours for thousands of Portlanders have become labor hours (with time and a half for overtime). What was a mud-flat on the river banks two years ago, is today an 11-way shipyard. But that's not all that has changed in Portland. Basic industries have expanded. New industries have developed at breath-taking speed. All this is typical of Portland's new tempo. Typical too, is Portland's ever-increasing industrial payroll. It has grown to four times what it was 24 months ago, and population has gone up almost 30%. All this means that in Portland, Oregon, advertisers will find a good market growing bigger and better.

★ *The people's preference for The Journal is the only thing that hasn't changed in Portland, Oregon. Over 76% (112,129 families) of The Journal's total daily circulation is concentrated in Portland. Here The Journal leads by 20,450 subscribers.*

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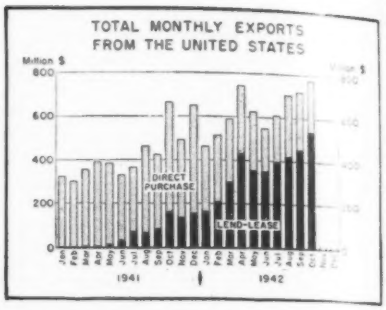


than one-third the value of monthly transfers of lend-lease goods.

The latest report submitted to Congress indicates that lend-lease has now reached an annual rate of $10,000,000,000—up 25% from the rate shown by the last two reports.

• **Semifinished Goods**—In another respect, the dollar value of goods transferred under lend-lease is no measure of the war weight of American production. In addition to finished arms, which account for more than 50% of current shipments, lend-lease exports include important quantities of semimanufactured materials for allied war industries.

Of our total new supply of these products—imports plus domestic output—we exported the following percentages during the first six months of 1942: aluminum, 2.7; copper, 12.2; cotton, 5.0; nickel, 3.5; petroleum products, 5.5; steel, 11.0; tin, 1.2; and zinc, 16.1. Low as these quantities may be in dollar value, they are of critical importance to the balance of war industries in Allied nations. For example, steel shipments have been running at an annual rate equivalent to nearly 10,000,000 tons of ingots compared with Britain's own steel capacity of 15,000,000 tons.

• **Many Planes and Tanks**—The United States is currently exporting only 15% of its munitions production, but of some items lend-lease countries receive a greater share: 30% of combat planes, 35% of tanks. While munitions form a mounting proportion of lend-lease exports (56% in October, 1942), the proportion of domestic output being exported continues to decline.

During the last quarter the direction of lend-lease shipments has shifted. The report covering the quarter ending in August, 1942, showed 35% of lend-lease going to the United Kingdom, 30% to the U.S.S.R., and 35% to the Middle East, Australia, and elsewhere. During October, according to the more recent report, 40% of lend-lease goods went to the United Kingdom, 30% to the Middle East, etc., and only 21% to Russia.

• **The Northern Route**—Admitting that "extraordinary difficulties" beset convoys to Russia, the President indicated that Britain and the United States succeeded in delivering a "great majority" of the 3,000 planes, 4,000 tanks, and 30,000 trucks, jeeps, and other vehicles sent by the northern route.

Money Trouble

North African inflation eased by new franc rate for military forces; Free French finances stymied.

French North Africa was in financial chaos when British and American troops landed. Having been squeezed of raw materials and food for France and Axis Europe, the French colonies were wealthy in money but poor in commodities for consumers. Consequently, the currency was highly inflated.

• **Occupation Money**—A year ago the Bank of Algeria was authorized by Vichy to increase its note circulation from 3,000,000,000 to 10,000,000,000 francs, and in August, 1942, the volume of currency circulating in Morocco was five times larger than before the war.

Both British and American soldiers landing in Africa carried and have been paid with "occupation" currency, similar to the *Reichskassenscheine* that followed the German army into conquered countries, having a new value in relation to the local franc.

• **Axis Agents Foiled**—British notes, issued in denominations ranging from £1 to 1s., bear the surprinted line "Issued by the British Military Authority," and American currency is likewise identified as of military origin. Obvious reason for distinguishing this from home currency is to prevent Axis agents in the area, well stocked with U. S. and British folding money, from cashing in on a windfall. Like precautions were taken in Hawaii recently (BW—Oct.17'42,p101).

Before the fall of France, and after Vichy became its capital, the official franc rate was established at 43.90fr. to the dollar—although colonial rates varied as high as 43.00fr.

• **Exchange Rate Cut**—Because of the unique condition of North African currency at the time of occupation (in nearby Tangier, an international zone until seized for "security" reasons by Spain, the franc was selling on the open market at 136fr. to the dollar), a new rate of exchange had to be established. An American dollar in North Africa will now buy 75fr., and the British pound is worth 300fr. at the same rate.

During the period when exports from the French colonies to Europe far exceeded imports, claims against France were converted into direct loans to the French government. This link between the North African currencies and the franc is now severed, and, presumably, as military notes find their way to the central banks of Morocco and Algeria, dollar and pound exchange balances will be created to match them.

• **Colonial Rate Unchanged**—The role of the Free ("Fighting") French cen-

tral bank in this situation is somewhat anomalous since its transactions—with French Equatorial Africa, Tahiti, New Caledonia, for instance—remain on the old exchange rate of about 43.90fr. to the dollar. Thus, for the time being, the Fighting French are precluded from undertaking financial dealings with the occupied colonies where there is already sufficient political confusion concerning their relations with the former French colonies. Where French West Africa adjoins Fighting French Equatorial Africa this monetary dichotomy sooner or later will create economic difficulties no less imposing than the present intra-French political complications.

CANADA

CMP in Dominion

Washington's new plan for distributing raw materials threatened Ottawa's system, so a variant is being tried.

Ottawa is now reasonably sure that arrangements will be worked out by which it can live comfortably under the new Controlled Materials Plan (BW—Dec.12'42,p41), but it has had some bad days since the plan was announced. On material control, Canada and Canadian producers are in a perpetually ambiguous position. Sometimes it seems to be treated as intimately as a 49th state; at others, it's a sovereign nation; and, occasionally, it's a part of the British Empire. When something like CMP is drafted, no one gives much thought to how Canada will fit in, but Canada has to live with it.

• **Method of Allocation**—In the fourth quarter, Canada has had a fairly workable dual system of material distribution. Goods imported from the United States are distributed by means of priority ratings issued by WPB's Canadian Branch and by means of a modification of the Production Requirements Plan. Under this modification, producers submitted to Ottawa quarterly statements of their requirements for U. S. goods. These were coalesced in Ottawa, used as the basis for a request to the Requirements Committee. The committee made a bulk allocation to Ottawa, which was there split up among the individual producers.

For distributing Canadian-produced materials, Canada has been able to develop a tight, quite simple control. Basic raw materials are allocated almost at the personal whim of two controllers, one for steel and one for other metals, who correspond to the U. S. commodity divisions. Civilian production is held down by limitation orders designed to be at least as restrictive as those in effect in this country. With the level of war and civil production thus held down, producers are allowed to buy fabricated products almost at will. There are no priority ratings, no bills of materials.

• **Impossible Situation**—Advent of the CMP threatened to upset this idyllic situation. In its original form, it would have required Canadian producers needing U. S. steel to do the impossible job of submitting bills of materials on their imported steel requirements as distinct from their domestic steel, would have played hob with the smoothly working Canadian system.

Two weeks ago, WPB and Canadian officials thrashed the thing out in Ottawa, and substantial agreement has now been arrived at on a compromise arrangement. There are two key points: (1) The present arrangement of a block allocation to Ottawa rather than to individual Canadian producers will be continued; and (2) Canada will be permitted, at least through the second quarter of next year, to obtain its requirements figures horizontally from PD-25-A forms submitted by all producers rather than vertically from bills of material obtained from prime contractors and, through them, from subcontractors.

• **Deciding Factor**—This last concession, which, in a sense, vitiates the whole scheduling feature of CMP, was possible because the Canadians were able to show that for nearly a year they have had detailed schedules of production and quarterly forecasts of material consumption running through 1943—and that the forecasts have checked on the nose.

Although CMP controls steel, copper, and aluminum, the Canadian problem is limited to steel, since Canada is a net exporter of copper and aluminum.

The new plan will work as follows: Early next year, Ottawa will compile a breakdown of needs for U. S. steel in the second quarter. This will be submitted to the Requirements Committee under the sponsorship of the Army, Navy, Aircraft Scheduling Unit, and Civilian Supply, as may be appropriate. On the basis of this, the committee will make an allotment to Ottawa and assign a block of CMP allotment numbers. The Canadian firms will use the allotment numbers, like anyone else, to buy steel from U. S. mills.

• **Most Troublesome Point**—Soft spot in the scheme is the handling of Class B goods—U. S.-fabricated products bought by Canadians: batteries, motors, etc. Actually, this is still the softest part of CMP as a whole. The Canadian buyers will have priority ratings with which to buy such products. But under CMP, a priority rating accompanied by an allotment number takes precedence over a plain priority rating. A Canadian producer who happens to get all his steel from Canadian mills and hence has no allotment number will thus be in trouble when he tries to buy U. S. products. One solution being considered is arbitrarily to assign some sort of allotment number to all Canadian producers.

Eventual intention is to put all Canadian steel distribution—domestic as well as imported—on a CMP-type basis.

ANOTHER VICTORY SHIP

Tugs prepare to warp a newly launched Liberty ship into its berth for final fitting in a West Coast Canadian port. This is only one of Canada's many war products for which steel from the United States is needed.

MARKETING

Drier, but not Dry

Many state monopolies have started card rationing, and allocations by distillers pinch dealers. Wine in best spot.

Rationing—number one consumer scare word—has ceased to be a remote bogey hovering over liquor sales. It is a reality in 8 out of 17 states where liquor retailing is a state monopoly.

• **How States Handle It**—Ohio, which theoretically was in good shape for the Christmas trade, thanks to the fact the liquor board began laying in holiday stocks last June, has now announced a card rationing system to go into effect the first of the year. Consumers in the state of Washington are licensed, now must have ration cards to purchase liquor. Coupon books like those used for sugar are to be issued in North Carolina.

In Alabama, Iowa, Oregon, Utah, and Virginia rationing is more or less informal—typically, sales are limited to one quart per day per person. Such a quota, obviously, is not based on consumption but is rather a technique for

POULTRY PICKER

A patent on a poultry picking machine has been granted on the "Greenbrier poultry picker." Made in three sizes for anything from squabs to tom turkeys, its mechanical, rubber fingers pluck 150 to 350 birds an hour, at a stated cost of 2¢ to 4¢ each. The machine was developed by Mueller Metal Products Co. of Cleveland.

18 POUNDS OR 35,000 TONS

Allis-Chalmers Equipment Helps Make Both Stronger

YES, WE HELP produce food to build sturdy youngsters...*and battleships, planes, tanks, to safeguard their future!* Allis-Chalmers makes equipment for every U.S. industry...1,600 different capital goods products!

Right now—every Allis-Chalmers man and woman is working for Victory...making equipment for Army, Navy and Air Corps...helping manufacturers produce more with machines now on hand!

Tomorrow—Allis-Chalmers experience can be turned to the happier job of building a better world!

ALLIS-CHALMERS MFG. CO., MILWAUKEE, WIS.

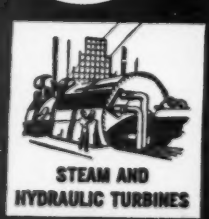
A-C tractors and farm machinery help harvest the food that keeps U.S. babies healthy!

Steel for mighty U. S. w... duced

ALLIS-CH...

OFFERS EVERY MANUFACTURER EQUIPMENT AND ENGINEERING ...ERAT...

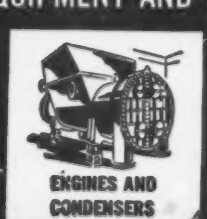
ELECTRICAL EQUIPMENT



STEAM AND HYDRAULIC TURBINES

MOTORS & TEXROPE V-BELT DRIVES

BLOWERS AND COMPRESSORS

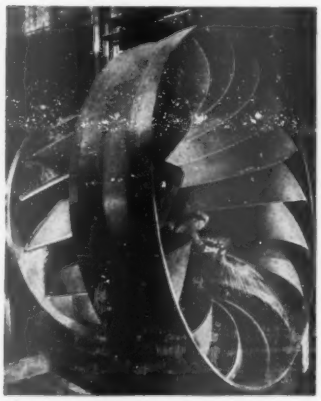


ENGINES AND CONDENSERS

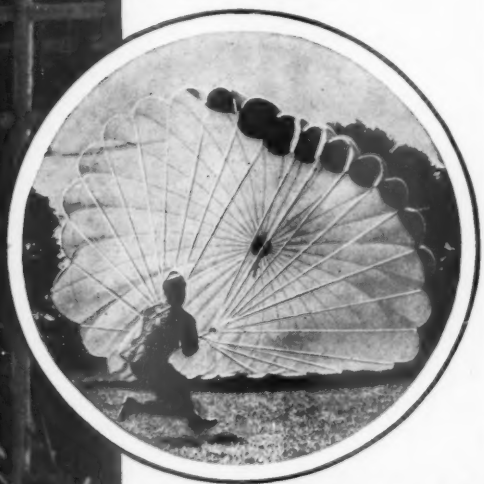
CENTRIFUGAL PUMPS

FLOUR MILL E...

A-C transformers help carry electricity to U.S. war plants.



A-C equipment helps harness rivers for war work.



A-C Texrope V-Belt Drives and A-C motors help make fabrics for parachutes and uniforms.

S. w duced with the aid of Allis-Chalmers equipment!

VICTORY NEWS

Smokeless Powder: To meet wartime needs for industrial alcohol, used in making smokeless powder, U.S. liquor distillers with facilities for distilling 190-proof alcohol are converting their entire capacity to war production.

One of the first to convert was Schenley Distillers Corporation, which installed a complete new Allis-Chalmers corn mill in their Indiana plant. Allis-Chalmers roller mills, degerminators, square sifters, reels, aspirators, dryers, coolers, motors, Texrope Drives, and auxiliary equipment comprise a coordinated degerminating system.

In a busy Great Lakes Shipyard, submarine parts are machined on modern lathes equipped with A-C Texrope Super-7 Drives!

More Power! Vitally needed increases in power transformer capacities can now be obtained quickly.

A new forced-oil cooling unit, called the Allis-Chalmers "Electro-Cooler," saves 25% in critical materials when built into new transformers and steps up capacity of transformers already in service by about 20 to 60%.

The new unit is highly practical. It is compactly built, factory-assembled and factory-tested at high pressure to minimize possibility of future maintenance.

If transformers are equipped with conventional-type radiator valves, installation can be made in three to four hours without even removing oil from transformer.

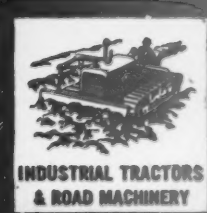
FOR VICTORY
Buy United States War Bonds

HALMERS

WE WORK FOR VICTORY

WE PLAN FOR PEACE

NG ERATION TO HELP INCREASE PRODUCTION IN THESE FIELDS...



preventing hoarders from descending and buying up liquor in gross lots.

• **Decreased Supplies**—Far from being a direct triumph for prohibitionists, this alcoholic beverage control is a measure designed only to ease the problem of supply and demand. It is a logical followup to allocation by distillers who are reported to have cut customers (both wholesalers and state monopolies) so that they are receiving only 50% to 75% of what they got before the whisky producers converted to industrial alcohol Oct. 8.

In so-called open states, wholesalers pass this cut on by rationing dealers. In monopoly states, where there is no middleman, authorities can ration the customer—and make it stick.

• **More Restrictions Coming**—Monopolies that haven't taken the step—Idaho, Minnesota, Michigan, Montana, New Hampshire, Vermont, West Virginia, Wyoming, Pennsylvania—are expected to in the next six months. Pennsylvania will probably be next; but not until there is some liquor to be rationed. Holiday buying has left shelves in the state's monopoly outlets empty, literally. Last week, the Pennsylvania press reported public thirst, bootlegging, and political repercussions that prompted the governor to threaten to chop off some heads.

On a national scale, however, the situation is less desperate. Liquor inventories—almost exclusively whisky—in September amounted to 500,000,000 gal. This—allowing for normal evaporation of about 75,000,000 gal.—is a three year supply. But this fall it looked as though stocks would never last that long. One big distiller, for instance, sold in the first six weeks of the 1942 fiscal year, 40% of previous fiscal year's total allocation. And beat-the-tax liquor buying in New York (BW—Nov.7'42, p40) pushed November liquor tax collections to $7,307,166.08 against last year's $2,808,688.66.

• **Gin Won't Last Long**—Of course, some popular liquors won't be around long for rationing. Gin stocks the end of October were 416,808 gal., considerably more than the 260,404 gal. on hand in October of 1941. But no more will be produced.

Scotch drinkers are safe for about two years—if annual consumption continues to be around 9,000,000 gal.—and probably longer if shipping doesn't become impossible. Great Britain claims to have a six-year supply for the foreign market, and ever since flaming liquor flowed through the streets of a couple of Scottish towns following Nazi bombings, precious stocks have been stored for safekeeping in scattered caves throughout the British Isles. Britain is still producing Scotch on a limited scale.

• **Fears for Postwar Era**—Hope nearest distillers' hearts now is that WPB will grant them a brief holiday from indus-

ASSOCIATED PRESS PHOTO

L. M. GIANNINI, *Banker:* "I look forward to TIME every week because TIME provides such a well-edited review of the week's news and brings all important events into proper perspective, thus permitting an intelligent appraisal of developments from the point of view of one's own activities. Such a service is valuable in normal times; it has grown inestimably greater since the war began."

WIDE WORLD PHOTOS, INC.

WILL DURANT, *Author and Lecturer:* "TIME is more indispensable to me than any other periodical of our time. I marvel every week at its continued energy, scope, vivacity, and relative accuracy; having made some errors myself I know how inevitable these are in a large undertaking."

ACME PHOTO

DONALD W. DOUGLAS, *President, Douglas Aircraft Corp.:* "I find TIME challenging, invigorating, instructive. Its terse, direct approach to vital problems stimulates unbiased consideration—creates an intelligent disregard of inherited, pre-conceived ideas and a determination to see things as they are. TIME deliberately, wisely stalks around where angels fear to tread."

ERIC SCHALL-PIX

EARNEST A. HOOTON, *Anthropologist:* "TIME, valuable before the war, is now invaluable. It brings into sharp universal focus the entire panorama of world events. I find these virtues in TIME: Editorial courage, reportorial originality, penetration in analysis, fearless appraisal of personalities, frank admission of errors, pervasive humor, terse, idiomatic English."

What do the men and women in "Who's Who" think of America's magazines?

BY ITS OWN TELL, "Who's Who" selects those people "who, in their several walks of life, tread in advance of the multitude—lead the way—and by their example, their labors, their writings and their speeches become leaders of public opinion in their community and pioneers of action."

"Leaders of public opinion!"—"pioneers of action!"—here indeed is a blue-ribbon grand jury to answer the question:

What do you consider the most important magazine in the country today?

When this question went to a cross section of the influential, successful men and women listed in "Who's Who," 3041 (or 41.4%) out of the 7350 queried, replied. And TIME led the field with 29.1% of the mentions—nearly twice the number received by the magazine next in line that carries advertising.

TIME came in first not only in the over-all tally, but also more specifically among the businessmen and business women, the doctors, government officials, lawyers, chemists, and engineers. (TIME seems to have increased its following in this important group, for a similar survey in 1939 gave TIME only 26.7% of the mentions against 18.3% for the next in line.)

And just to make sure "Who's Who" wasn't merely admiring TIME from a distance, a cross section was queried again only last month—and each of the men and women listed there was asked to name his own personal favorite among all the magazines he reads. TIME piled up a towering lead—got more first choice votes than all the next three magazines that carry advertising.

TIME is indeed grateful for this vote of confidence—will do all in its power to deserve the continuing interest and support of "America's Most Important People."

TIME

THE WEEKLY NEWSMAGAZINE

These Key groups all vote TIME "America's most important magazine!"

(Perhaps because TIME does the most important job a magazine can do—for America's most important people.)

EVIDENCE PREVIOUSLY SUBMITTED:
Corporation officers and directors (TIME, 3 to 1)
Newspaper editors (TIME, 3 to 1)
Radio commentators (TIME, almost 2 to 1)

EVIDENCE HEREWITH:
People listed in Who's Who (TIME, 2 to 1)

COMING SOON!

College presidents
Members of Congress
Newspaper columnists
Members of American Medical Association
School principals Mayors
Contributors to Encyclopedia Britannica

War Shifts the Nation's Manpower

Ever since the expanding war production program began to induce large manpower migrations, one of the main questions in the minds of marketing men has been: "Where, and to what extent, has population increased or decreased." Now, for the first time, there is an accurate measure of these shifts.

Nation-wide registration for sugar rationing May 4–7, 1942, provided the nearest thing to an interim population census that this country has ever had. True, its accuracy fell short of regular census procedures in many important respects. Residents of hospitals, asylums, prisons, and other institutions were not allowed to register. The same is true of members of the armed forces and inmates of internment camps. Some eligible individuals failed to register, either because of neglect or because their stocks on hand were above the limit allowed by the Office of Price Administration.

On the basis of these figures, however, the Bureau of the Census has been able to estimate the total civilian population, including residents of institutions and nonregistrants, but excluding the armed forces and other noncivilians. They have also adjusted 1940 census figures to arrive at an estimated all-civilian figure that is comparable to the 1942 statistics.

The tabulation below shows the estimated 1940 and 1942 civilian population figures and the percent gain or loss for 137 "metropolitan districts," containing in all slightly more than 50% of the country's total inhabitants. It is well to bear in mind that the changes for the larger metropolitan districts are in effect averages of much sharper changes in separate localities within the areas. Thus, in the New York City area, New York City's population dropped more than the table shows, but this was offset by gains in northern New Jersey.

ESTIMATED CIVILIAN POPULATION

(In Thousands)

Metropolitan District	*May 1, 1942*	*Apr. 1, 1940*	*% Change*
San Diego	373	276	+35.1
Norfolk-Portsmouth-Newport News	429	322	+33.2
Mobile, Ala.	189	142	+33.1
Montgomery, Ala.	144	111	+29.7
Corpus Christi, Tex	119	93	+28.0
Washington	1,151	920	+25.1
Charleston, S. C.	147	118	+24.6
Wichita, Kan.	178	143	+24.5
Jacksonville, Fla.	258	210	+22.9
Columbia, S. C.	122	105	+16.2
Detroit	2,710	2,374	+14.2
Little Rock, Ark.	176	156	+12.8
San Antonio	354	316	+12.0
Johnstown, Pa.	238	213	+11.7
Columbus, Ga.	123	111	+10.8
Louisville	498	451	+10.4
Beaumont-Pt. Arthur Tex.	160	145	+10.3
Dayton	325	295	+10.2
Hartford-New Britain	557	506	+10.1
Galveston, Tex.	88	80	+10.0
Macon, Ga.	92	84	+ 9.5
Tulsa, Okla.	211	193	+ 9.3
Seattle	549	503	+ 9.1
Birmingham	502	460	+ 9.1
Chattanooga, Tenn.	229	211	+ 8.5
Savannah, Ga.	127	117	+ 8.5
Augusta, Ga.	89	82	+ 8.5
Jackson, Miss.	116	107	+ 8.4
Dallas	431	398	+ 8.3
Rockford, Ill.	131	121	+ 8.3
El Paso, Tex.	136	126	+ 7.9
New Haven	520	484	+ 7.4
Indianapolis	492	458	+ 7.4
Bridgeport	449	418	+ 7.4
Canton, Ohio	252	235	+ 7.2
Pueblo, Col.	74	69	+ 7.2
Waco, Tex.	109	102	+ 6.9
St. Louis	1,527	1,430	+ 6.8
San Francisco-Oakland	1,542	1,447	+ 6.6
Nashville, Tenn.	274	257	+ 6.6
Davenport, Ia.-Moline-Rock Island, Ill.	211	198	+ 6.6
Fort Wayne, Ind.	165	155	+ 6.5
Cincinnati	861	810	+ 6.3
Evansville, Ind.	168	158	+ 6.3
Tacoma, Wash.	183	173	+ 5.8
Hamilton-Middletown, Ohio	127	120	+ 5.8
Akron	358	339	+5.6
Columbus, Ohio	409	388	+5.4
Austin, Tex.	117	111	+5.4
New Orleans	574	545	+5.3
Atlanta	503	478	+5.2
Knoxville, Tenn.	187	178	+5.1
Kalamazoo, Mich.	105	100	+5.0
Baltimore	1,126	1,073	+4.9
Houston	555	529	+4.9
Portland, Me.	151	144	+4.9
Shreveport, La.	157	150	+4.7
Los Angeles	3,045	2,914	+4.5
Wilmington, Del.	186	178	+4.5
Fort Worth, Tex.	236	226	+4.4
Richmond, Va.	245	235	+4.3
Salt Lake City, Utah	220	211	+4.3
Denver	398	382	+4.2
Springfield, Ohio	100	96	+4.2
Sacramento, Calif.	177	170	+4.1
Decatur, Ill.	88	85	+3.5
Chicago	4,725	4,576	+3.3
Portland, Ore.	425	412	+3.2
South Bend, Ind.	167	162	+3.1
Madison, Wis.	135	131	+3.1
Harrisburg, Pa.	182	177	+2.8
Allentown-Bethlehem-Easton	355	346	+2.6
Philadelphia	3,027	2,953	+2.5
Trenton, N. J.	202	197	+2.5
Durham, N. C.	82	80	+2.5
Erie, Pa.	185	181	+2.2
Providence	688	677	+1.6
Omaha-Council Bluffs	318	313	+1.6
Buffalo	970	958	+1.3
Waterloo, Iowa	81	80	+1.3
Cleveland	1,231	1,217	+1.2
Kansas City	664	656	+1.2
York, Pa.	180	178	+1.1
Cedar Rapids, Iowa	90	89	+1.1
Des Moines, Iowa	197	195	+1.0
Memphis	361	358	+0.8
San Jose, Calif.	173	172	+0.6
Tampa-St. Petersburg, Fla.	273	272	+0.4
Springfield, Mass.	405	405	.....
Grand Rapids, Mich.	246	246	.....
Phoenix, Ariz.	186	186	.....
Fresno, Calif.	179	179	.....
Terre Haute, Ind.	100	100	.....
Springfield, Mo.	91	91	.....
Milwaukee	766	767	−0.1
Fall River-New Bedford	364	365	−0.3
Boston	2,811	2,821	−0.4
Albany-Troy-Schenectady	464	466	−0.4
Flint, Mich.	227	228	−0.4
Saginaw-Bay City, Mich.	204	205	−0.5
Minneapolis-St. Paul	915	924	−1.0
Miami, Fla.	265	268	−1.1
Racine-Kenosha, Wis.	155	157	−1.3
Lansing, Mich.	129	131	−1.5
Springfield, Ill.	116	118	−1.7
Worcester	494	503	−1.8
Roanoke, Va.	110	112	−1.8
Lancaster, Pa.	209	213	−1.9
Charleston, W. Va.	192	196	−2.0
Charlotte, N. C.	149	152	−2.0
Youngstown	365	373	−2.1
Huntington, W. Va.-Ashland, Ky.	186	190	−2.1
Stockton, Calif.	131	134	−2.2
Syracuse, N. Y.	288	295	−2.4
Pittsburgh	2,068	2,127	−2.8
Lincoln, Neb.	98	101	−3.0
New York City	10,752	11,117	−3.3
Reading, Pa.	234	242	−3.3
Rochester	423	438	−3.4
Toledo	332	344	−3.5
Binghamton, N. Y.	160	166	−3.6
Spokane, Wash.	156	163	−4.3
Wheeling, W. Va.	223	234	−4.7
Peoria, Ill.	202	212	−4.7
Manchester, N. H.	138	145	−4.8
Altoona, Pa.	133	140	−5.0
Duluth, Minn.-Superior, Wis.	240	254	−5.5
Amarillo, Tex.	51	54	−5.6
Winston-Salem, N. C.	118	126	−6.3
Atlantic City, N. J.	116	124	−6.5
Sioux City, Iowa	97	104	−6.7
Asheville, N. C.	101	109	−7.3
Utica-Rome, N. Y.	241	263	−8.4
Scranton-Wilkes Barre	664	743	−10.6
Oklahoma City, Okla.	217	244	−11.1
St. Joseph, Mo.	83	94	−11.7
Topeka, Kan.	80	91	−12.1

trial alcohol production (BW–Dec.19 '42,p28) to provide a minimum of aged stock for consumption when the war is over. Otherwise a return to the green whisky of 1933 is regarded as a postwar certainty. Besides, complete exhaustion of supplies would probably mean a recurrence of bootlegging and the other ills.

The liquor buying spree now shows signs of leveling off–even without rationing. Allied Liquor Industries (BW–Dec.12'42,p70) made a study showing that while per capita income in the U. S. rose 22% in the first eight months of this year, liquor sales were up only 15% in the same period.

• **Major Sales Factors**–Chief reason the industry expects a downward trend in sales is the 20% increase in the price of whisky represented by higher federal taxes, boosted from $4 to $6 a proof gallon Nov. 1. Trade observers feel, too, that with Uncle Sam going after the inflationary gap with hammer and tongs, channeling income into taxes, savings, payment of debts, etc., the liquor industry will come in for a greatly reduced share of the nation's greatly increased purchasing power.

Ultimately a reduced number of retail outlets and the disappearance of certain brands will make for a decrease in consumption. Such factors will be most apparent in open states where formal rationing is virtually impossible. Dealers may, however, attempt some form of rationing in order to stay in business. Sales by the case, at least, will become a thing of the past.

• **Restrictive Measures Hurt**–Liquor dealers, already begging for relief under

Do you know what the "intercooler" does?

PERHAPS YOU'VE NEVER SEEN the word before. Yet the *intercooler* is one of the developments that have helped make possible the pride of all Americans — the high-altitude U.S. bomber.

To propel heavy "air cruisers" flying 7 miles high, engines are equipped with superchargers. These superchargers compress the stratosphere's thin air to many times its normal density — then feed this compressed air to the engines. Only in that way can the engines get enough oxygen to operate at top power-output.

But when air is greatly compressed, it becomes hot—very hot—and unless such overheated air *is cooled* before reaching the combustion chambers it will result in harmful detonation or "knocking," and hence power loss.

To meet this set of circumstances aviation engineers developed *intercoolers*. The duty of *intercoolers* is to condition hot supercharged air to a more efficient temperature and thus increase the effective altitude of U.S. warplanes.

The development of lightweight all-aluminum intercoolers has been one of our war assignments here at AiResearch.

In addition to intercoolers, our engineers have perfected new types of engine oil coolers, aftercoolers, and exit flap controls—all now in large-scale production.

Some of the intricate war duties that AiResearch engineers have taught air to perform would astound you, if they could be told today . . . *After the war, you'll find us ready with amazing civilian helps created for you out of just this newer knowledge of what controlled air can do.*

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MANUFACTURING COMPANY
LOS ANGELES, CALIFORNIA
DIVISION OF THE GARRETT CORPORATION

"Where Controlled Air Does The Job" • Automatic Exit Flap Control Systems • Engine Coolant Systems
Engine Oil Cooling Systems • Engine Air Intercoolers • Supercharger Aftercooling Systems

price ceilings, will be squeezed even more under rationing—or anything else that reduces sales—because their expenses are fixed. In some states the store license alone is $1,500. Present inventories—floor stocks are about 25,000,000 gal.—will keep retailers from going dry for a while and allow them to fill in for artificial shortages occurring when deliveries are late or curtailed. But lack of a unified industry plan of allocation makes the outlook for the dealers a gloomy one.

One thing that won't be rationed is wine. Big distillers have become vintners (BW—Nov.21'42,p126) almost as fast as they became industrial alcohol producers, and consumption is bound to hit a peak this war. Whether or not production will is something less of a certainty, wineries having sacrificed about 20% of their equipment to distillers not equipped to produce spirits required for industrial alcohol.

OPA Springs One

Furniture makers in a fog as conflicting orders bound and rebound; but wooden springs seem here to stay.

Rushing to perfect models with wooden springs (BW—Oct.31'42,p35), furniture manufacturers have been thrown off stride by an OPA ruling that applications for price approval must be accompanied by certificates approving the new springs. The catch is how to obtain such certificates.

• **Orders Without Delivery**—In the first place, OPA specifies the document must come from a commercial testing laboratory, although none has been designated as qualified to judge. Then, the ruling adds, certificates must guarantee that such springs conform to Bureau of Standards' requirements in structure and performance. The rub there is the bureau has set no standards as yet.

At any rate, manufacturers are permitted to exhibit and take orders on wood-spring items with the understanding that prices will not exceed government limits. No deliveries can be made, however, until testing and pricing is completed.

• **Industry Unbowed**—Another fly in the ointment is OPA's demand that new furniture be priced at or below that equipped with steel springs—prohibited since Nov. 1. According to the industry, this can not be done without playing Santa Claus, since wooden springs cost more in labor and materials.

Through it all the industry has remained optimistic, predicts that plenty of wooden-bounce furniture will be exhibited in the January shows, that plenty will be sold.

WAR BUSINESS CHECKLIST

A digest of new federal regulations affecting priorities, price control, and transportation.

Steel Drums

To aid heavy chemical producers and other industrial users of stainless steel drums, OPA has fixed a maximum price of $35 each for reconditioned 55-gal. drums held by manufacturers who are ineligible to use them. The price for new drums of the same size, if there were any available, would be about $46.50. (Amendment 1 to Revised Schedule 43.)

Meat

Meat quotas for the first quarter of 1943 have been reduced moderately due to a somewhat higher revised estimate of the needs of the armed forces. Beef and pork quotas remain unchanged at 70% of the comparable 1941 quarter, veal is cut from 100% to 70%, and lamb and mutton are cut from 95% to 75%. In order to ease present local shortages, packers are authorized to ship up to 10% of their 1943 first quarter quotas in December, 1942.

Dollar-and-cents wholesale price ceilings on all poultry have been set at levels slightly higher than those that have prevailed at any time this year in order to encourage poultrymen to push for the Department of Agriculture's 1943 goals of 4,000,000,000 lb. of chicken and 560,000,000 lb. of turkey. The ceilings reflect approximately 115% to 120% of parity. New retail ceilings will be announced shortly, in the form of maximum markups. (Revised Regulation 269.)

Import Control

No person may import, without specific WPB authorization, any commodity listed in Order M-63, as amended. This restriction holds true in spite of any contracts that are already in existence to import any of these commodities. This action is necessary in order to increase the effectiveness of the government's own purchasing program abroad, and it is emphasized that authorization will be readily granted for imports that do not interfere with this program.

Stoves

Heating stoves—both coal and oil—are now being rationed by boards in the 30 eastern states subject to fuel oil rationing. The program will virtually suspend sales of oil heaters in the affected area, but will make "coal heaters available to everyone who can use one and who is eligible under the program," according to OPA.

The Army has released 100,000 coal-burning stoves for sale to civilians in the colder parts of the 30-state area. About 15,000 are already being shipped, and the other 85,000 will come off the production lines this month and next. This is in addition to some 300,000 stoves made available to civilians from increased production made possible by prohibiting the manufacture of coal- and wood-burning cooking stoves (BW—Nov. 21'42,p88).

Furnaces

Production of steel furnaces for direct-fired air heating systems has been banned after Dec. 31, 1942, except under specific WPB authorization. In granting such authorization for urgent military needs, WPB will specify where and by whom the furnace may be made, and where it will be delivered in order to conserve transportation and eliminate crosshauls. (Supplementary Order L-22-a.)

Vitamin C

Ascorbic acid (vitamin C) has been placed under complete allocation control by WPB. No deliveries in excess of 5 oz. a month may be made without specific authorization. (Order M-269.)

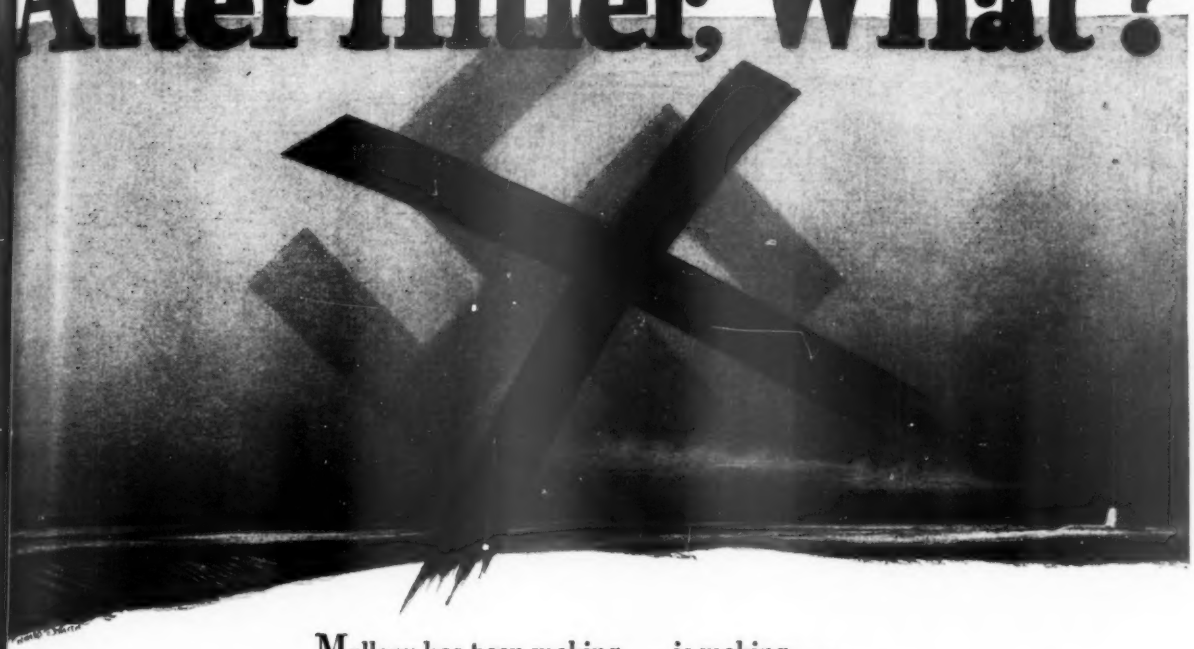
Foundation Garments

All restrictions on the output of brassieres and bandeaux have been removed, since the elastic used in their manufacture is almost entirely scrap. (Previously, monthly output had been limited to 75% of the average month in the first quarter of 1941.) In addition, unlimited use of scrap elastic is allowed in the manufacture of hose supporters, and up to 16 sq. in. per garment in garter belts. The number of hose supporters on any undergarment is limited to four. (Order L-90, as amended.)

Asbestos Textiles

Use of asbestos textiles in a group of less essential items has been banned by WPB. No manufacturer may put into process any asbestos textiles to make any of a list of 12 items in List A of the order, and any work in process now must be completed by Feb. 1. Use of asbestos textiles in mechanical packing or gasket material and laminated plastics is limited

After Hitler, What?



Mallory has been making . . . is making . . . and will be making electronic products, resistance welding electrodes, electrical contacts and other creations of scientific skill . . . when Hitler is dead and buried. When we'll have 'round-the-world airliners instead of 'round-the-clock bombings.

That doesn't mean that Mallory, a winner of the Army-Navy Production Award for excellence, is overlooking today's biggest . . . the one supremely important job . . . winning the war!

Today American industry keeps pace with American war effort . . . on land, in the air and on the seven seas. Scientists, research men, production workers forget about timeclocks. The better products they are creating now are an insurance policy for Mr. World Citizen of the future!

THE PART THAT MALLORY PLAYS

To meet the super-stresses and strains imposed by war machines, Mallory metallurgists have developed new non-ferrous alloys and powdered metal products . . . better resistance welding electrodes . . . improved electrical contacts . . . and silver-surfaced aircraft engine bearings and bushings. Mallory communications engineers have designed new types of condensers, vibrators, volume controls, switches, rectifiers and other electronic parts . . . all to overcome problems imposed by demands for hitherto uncalled for performance. Higher aircraft speeds for instance.

Most of these developments have tremendous implications for the future. New techniques in resistance welding will be a big factor in lowered costs and speedier accomplishment. Electronics is destined for an important niche in industrial production. And the postwar inheritance from wartime communications promises revolutionary progress in radio and allied arts. Radio is adding a new "dimension" in ultra-short waves right now.

We are doing our best every day to help end the war in victory . . . quick and complete. But not for a minute have we lost sight of the future—and the day when Mallory products will be used not for man's destruction but for his progress. P. R. Mallory & Co., Inc., Indianapolis, Indiana. Cable "Pelmallo".

P. R. MALLORY & CO. Inc.

MALLORY

SERVES THE AERONAUTICAL, AUTOMOTIVE, ELECTRICAL, GEOPHYSICAL, RADIO AND INDUSTRIAL FIELDS WITH . . . RESISTANCE WELDING ELECTRODES, ELECTRICAL CONTACTS, NON-FERROUS ALLOYS, POWDER METALLURGY AND BI-METALS . . . SPECIALIZED PRECISION ELECTRONIC PRODUCTS . . . THE MALLOSIL* PROCESS.

*Reg. U. S. Pat. Off.

ARMY E NAVY

to underwriter's grade. The plastics limitation, however, does not take effect until Feb. 14. (Order M-123, as amended.)

Travel Conservation

Cancellation of trade shows and sales meetings that involve intercity travel as well as conventions, is urged by the Office of Defense Transportation as part of the general program to conserve transport facilities for more essential war purposes.

Photographic Film

Manufacture of photographic film for professional use in 1943—both 35-mm moving picture and still—is limited to 76% of 1941 output. Smaller movie film and snapshot film for amateurs is limited to 50% of 1941 production. (Order L-233.)

Recreation

Bowling alleys and pool and billiard parlors have been brought under the provisions of OPA's services regulation, resulting in a small reduction in the cost of all three games. (Amendment 13 to Regulation 165.)

Other Priority Actions

Several additional uses for agave fiber and cordage are permitted by Order M-84, as amended. . . . Storage bat-

BENCH SERVICE

Mountain-to-Mohammed wrinkle is a rolling gage-checking table used in a Nash-Kelvinator war plant to save 1,000 man hours daily—previously consumed by workers carrying gages to a central test room. Five fully equipped units in the production and inspection departments now inspect and test 7,000 gages a day.

America's WAR PRODUCTION . . . HOW BIG IS THE JOB?

★ *An application which emphasizes the extreme flexibility of the Milwaukee Duplex Milling Machine.*

★ How big is America's war production job? Aside from the numbers of men needed on the production lines, just what is involved in building the swarms of warplanes . . . fleets of ships . . . legions of tanks and trucks . . . tons of shells and guns . . . motorized equipment in vast variety . . . destined to provide the mechanized military might that will hasten the inevitable victory of our armed forces?

Figures running into the millions even fail to reflect the magnitude of the task; it can be better grasped by realizing that the major production of practically every important industrial plant in America is allocated to the war effort.

It's easy to understand that it's a battle of production as well as a battle of men under arms.

The machine tool industry — the manufacturers of lathes, grinders, drilling and boring machines, milling machines, and others are in the front lines of the nation's battle of production, building the hundreds of thousands of tools which the metal working industry needs to make weapons of war.

America has a job to do right now . . . TO WIN THE WAR! . . . Producing milling machines in volume — to the highest precision standards — is our particular assignment on the production front and we are working at it . . . twenty-four hours a day, seven days a week.

KEARNEY & TRECKER CORPORATION

Milwaukee MACHINE TOOLS

KEARNEY & TRECKER CORPORATION, MILWAUKEE, WIS., U. S. A.

teries that may be produced for use in hearing aid devices are limited to four specified sizes by Supplementary Order L-71-a. . . . The packaging of **hypodermic needles** and syringes with single doses of serums, vaccines, and antitoxins has been banned. . . . An amendment to Supplementary Order P-46-b relaxes restrictions on the construction of utility lines to furnish **gas or electric service** for domestic ranges. . . . Sales of rigid **electrical conduit** and electrical metallic tubing, flexible metal conduit and tubing, and metal raceways for inclosure of wire and cable are restricted, and the amount of steel that may be used in the output of raceways and rigid conduit is limited by Order L-225.

Other Price Actions

An increase of approximately ½¢ a pint in the retail price of **light cream** and a proportionate increase at the wholesale level have been authorized by OPA. . . . Increases in total landed costs of **imported commodities** may be added to the ceiling price by an importer who sells to an intermediate distributor, and the added cost may be passed on by the distributor. . . . Sales of **damaged commodities** by insurance and transportation companies and agents of the U. S. government have been exempted from price control.

PRODUCTION

Hitched to a Star

Synthetic rubber's need for greater quantity of carbon black points to new levels and methods of production.

The carbon black industry in this country is going to ride on the coattails of the synthetic rubber program to higher production levels and new manufacturing methods.

• **Blending Agent**—The old channel type of black was a satisfactory blending agent in tires to improve the tensile strength, resilience, resistance to abrasion, and other wearing qualities of crude rubber. Synthetic rubber has a low tensile strength, however, necessitating the use of carbon black in greater amounts. In addition, synthetic lacks the bounce of natural rubber, and generates a greater amount of heat in the tire in use.

These conditions suggest that, in the blending of carbon black with synthetic rubber for tires, heat generation will be kept to a minimum by increasing the size of the particles of carbon black and by decreasing the hardness of the black to give better over-all wearing qualities.

• **Three Processes**—In commercial practice there are three general processes for making carbon black—the channel, furnace, and thermatomic cracked methods. The channel process represents the general method of producing black by direct contact of a flame of natural gas on a depositing surface. Yields by this method are from 1 lb. to 5 lb. per 1,000 cu.ft. of gas.

Furnace black is formed when gaseous fuels are burned in an inadequate supply of air, the products removed from the furnace, and the carbon recovered. Yields range from 3 lb. to 20 lb. per 1,000 cu.ft. of gas. In cracking or thermal decomposition, carbonaceous vapors or gases are heated to a decomposition temperature by external heating, with or without air, in a forming chamber.

• **Acceleration Stressed**—The need for increased production of the new types of black arising through the synthetic rubber program was brought to the attention of petroleum refiners and natural gasoline manufacturers by Paul M. Raigorodsky, Texas engineer, assistant director of the natural gas and natural gasoline division of the Office of Petroleum Administrator for War. Carbon blacks can be made with a wide range in particle size and in degree of softness, resistance to abrasion, and heat generation when compounded with rubber.

Research work is proceeding, to develop the best methods for making these types of blacks. The future will see increasing amounts of carbon black manufactured from such products as residue gas from gasoline plants and such liquid products of refineries as distillates, kerosene, and fuel oil.

• **Higher Efficiency**—Use of liquid hydrocarbons as raw materials points to higher efficiencies in carbon black production in that the amount of carbon recovered per pound of raw material is higher with liquid materials. This development should allow for the expansion of the carbon black industry without placing additional strain upon existing natural gas systems and reserves.

Total carbon black production in the U. S. in 1940 was just short of 570,000,000 lb., of which about 90% was sold to the rubber companies. Ink and paint manufacturers took most of the rest. Nearly 90% of what was made was channel black. It is estimated there are now not over 70 carbon black plants in the U. S., mostly in Texas and Louisiana, near to large natural gas fields.

THE RIGHT ANGLE ON *FLEET ANGLES*

Don't let faulty fleet angles deprive you of the satisfactory performance and full time service you can get out of properly aligned wire rope. Excessive fleet angles always result in unnecessary side wear and scrubbing of cable turns—causing distortion, bruising and crushing of individual wires. Drums and sheaves, too, are likely to be irreparably damaged through wearing down of groove walls or flanges. Wherever you suspect excessive fleet angles check the alignment between the first fixed sheave and drum... You can also decrease the angle by increasing the distance between sheave and drum.

Today, wire rope is too precious to gamble with... None is available to private industry... only for government use and high priority war production. Preserve what you have for as long as you can! Get the right angle on fleet angles.

•

FLEET ANGLE is the angle between the center line of sheave and the rope as it moves across the face of the drum—as shown in the diagram. Maximum economical fleet angle should not exceed 1½° for plain faced drums. This is equivalent to 40 feet of lead for every foot of traverse travel to either side of the sheave center line.

For advice regarding your specific problems, address our engineering department.

ROCHESTER *Ropes*

JAMAICA, NEW YORK • CULPEPER, VIRGINIA

Military Milk

Mixing water, a powder and Avoset produces fresh-tasting milk in the tropics; can be used anywhere.

When one of the officers of Pan American Airways flew back from the Guadalcanal region, he telephoned Vice President Mahlon K. Jordan of Avoset, Inc., San Francisco. The officer, Capt. C. E. Chase, wanted to report that a new "reconstituted" milk, mixed with Avoset, the patented "stabilized" cream that keeps sweet indefinitely without refrigeration, is the one thing that "tastes more like home than anything else the boys out there have."

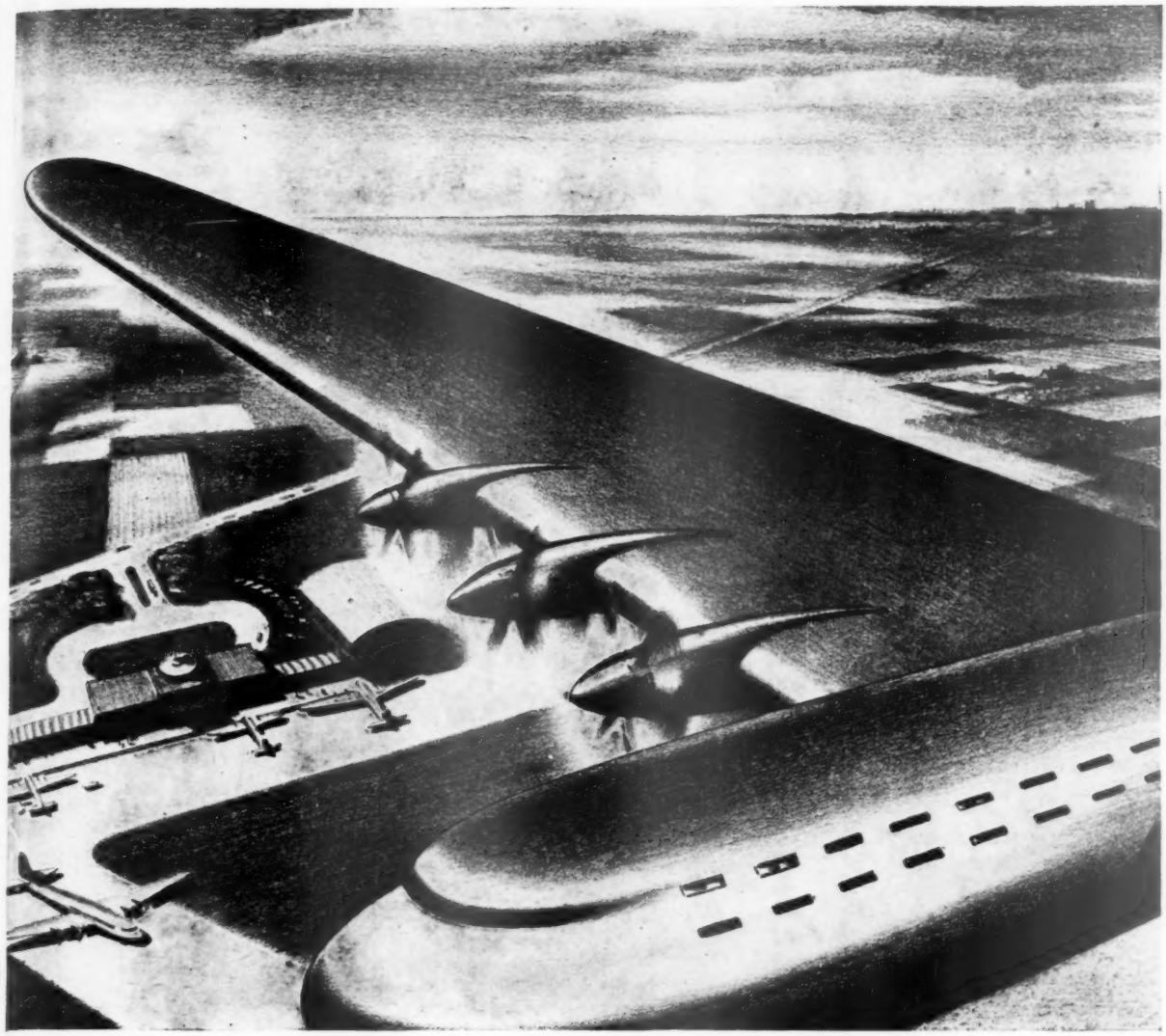
• **Easy to Make**—The report was not exactly news to Jordan. Welcome as it was, it simply confirmed the results of extensive tests made in Chicago last summer by the Subsistence Research Laboratory of the Army Quartermaster Corps.

Once you have the Avoset, some skim milk powder, and water, it is apparently no trick at all to make reconstituted milk. Given correct proportions, which have been worked out by the Gustine (Calif.) laboratory of California Milk Products Co., the powder mixes readily with water, and the stabilized cream mixes instantaneously with the powder-water solution.

• **No Chemicals Needed** — Stabilized cream, developed by the laboratory a few years ago, starts out as heavy sweet cream and stays that way. It is "flash-sterilized" so rapidly that all bacteria are killed without giving the butterfat content a chance to change chemically. Just before sterilization, a fraction of 1% of vegetable stabilizer is added for the sole purpose of preventing milk solids from separating in long standing. No chemical preservatives whatever are added.

Hermetically sealed in sterile bottles or tins, the cream can be shipped anywhere without fear of spoiling or change in flavor. In fact, Avoset, California Milk Products affiliate that looks after its marketing, was shipping it to civilians in Alaska, Hawaii, India, Africa, and other points with acute dairy problems until the armed forces and other government agencies snapped up practically all available production.

• **A Few Users**—It has been purchased for some time by Panama Railway Co., Pan American Airways, Standard Oil of New Jersey, and other companies for their men in foreign operations. A widespread civilian market in continental United States after the war, especially in localities where the fresh milk and cream supply is uncertain or spasmodic, is foreseen.



Prairie Port in the *Age of Flight*

This is no time for dreaming. But those who work and fight must see a world worth fighting for. Out of war sacrifices will come a new era of opportunity. Some of this important future lies in the air above . . . in the coming Age of Flight.

Already the airplane is weaving a new pattern of transportation, which is completely changing former ideas of time and space and distance.

United Air Lines, for example, now flies farther on special war missions alone — many of them to distant parts of the world — than ever before on peacetime flights.

Yet at the same time it maintains regularly scheduled service along the strategic Main Line Airway, saving precious hours for men in uniform, for civilians with vital production problems, and for the air mail and air express that are playing so important a role in the conduct of the war.

With the coming of peace, you will see still further changes in the whole conception of travel and transportation. Roads and rivers that follow the natural paths of the earth will yield to airways, unhindered by geography. New lanes will link important areas — world ports will flourish the length and breadth of the land.

Broad prairies and seashores alike will be "ports of the air" — practical taking-off places for world markets.

Right now, United's unrivaled flying experience of 250,000,000 miles is helping to speed the winning of the war. When the day of victory arrives, that same experience will help fulfil the promise of the Age of Flight.

★ BUY WAR BONDS FOR VICTORY ★

UNITED AIR LINES

THE MAIN LINE AIRWAY

NEW PRODUCTS

Solvent Reclaimer

Although there are commercial "dry cleaners" in many localities equipped to reclaim the chlorinated hydrocarbon solvents used to rid metal parts of oil and grease in many war production plants, valuable time and transportation can be saved by reclaiming your own with the Circo Dee-Solv Solvent Still, new product of Circo Products Co., 2835 Chester Ave., Cleveland.

Entirely self-contained, the still is only 47 in. high with a 24 in. diameter, mounted on casters for portability, and equipped with a 15-ft. electric plug-in cord for an inbuilt 850-watt electric heating element. Simply fill an inner tank with five gallons of dirty, oil-laden solvent, turn on the current, and go on with other work. Clean solvent will be distilled and ready to be tapped in about two hours. You will know when the job is done by the blinking of a light.

Plane Protection

The compact device in the technical sergeant's hands is the new "Impact Switch" developed by Walter Kidde & Co., 140 Cedar St., New York, primarily for increasing the fire protection of Army and Navy planes. Connected into the carbon-dioxide piping system of a plane, and with its inbuilt "trigger" adjusted to go off instantly at the moment of a crash, it will release several pounds of the fire-smothering gas into the engine compartment—even though

the pilot may be unconscious or incapable of operating the regular hand valve provided with such extinguishing equipment.

Important detail of the switch is that its trigger can be set to trip only under a force greater than that developed during the sharp dives and twists of aerial dog fighting or rough landings on bumpy fields.

Indexing Turret Lathe

When the Oster "'Rapiduction" Turret Lathe was put on the market a few months ago by Oster Mfg. Co., 2055 E. 61st Rd., Cleveland, it was

furnished with manual control for its six-station turret. Now, in a new refinement, the turret is indexed from position to position automatically.

Capacity of the outfit is up to 1¼ in. diameter for boring, tapping, reaming, facing, threading, cutting off, or other operations. It is designed specifically to "release more costly machines and highly skilled operators from a wide range of bar and chucking operations," and for training green operators.

"Barometer Ink"

Practically everyone has seen the little cloth flowers that change color from blue to pink and back again in accordance with the rise or fall of humidity in the air. Secret of the "barometer flowers" is in the dye, the changeable tints of which have been duplicated by Sleight Metallic Ink Co., 75 West St., New York, in its new Barometer Ink. It is formulated for weather-indicating blotters, calendars, and other printed advertising novelties, no matter what kind of paper stock is used.

Lathe Center Lubricant

As lathe speeds are jumped to keep up with ever faster war production, the dead centers on the lathes are subject to overheating and consequent scoring and shutdown unless protected by an adequate lubricant. Joseph Dixon Crucible Co., Jersey City, N. J., believes it has such a product in its new Dixon's Lathe Center Graphite Lubricant, which comes in 1-, 4-, and 8-oz. collapsible tubes. Since it is compounded to withstand extreme pressures, it may be used in other services requiring extraordinary film strength, as in certain types of gearing and bearings.

WAR BONDS

THE throb of motors shatters the frozen silence as an American plane sweeps in for a landing at a snow-blown Arctic base. Even at 50° below zero the plane sits down on a "cushion"; the special Whiz Hydraulic Fluid in its shock absorbers flows freely in the congealing cold . . .

And deep in a Yankee submarine, creeping through enemy waters, a special Whiz lubricant helps speed a dire message to Tojo as lads with grim faces grease a torpedo, slide it into the tube.

So, many Hollingshead products . . . Whiz products in special forms . . . serve in this global war. Tropical and sub-zero lubricants for tanks, trucks and guns . . . insecticides for bug-ridden tropics . . . rust preventives . . . hydraulic fluids for bomb bays, gun turrets, recoil mechanisms . . .

The Whiz Automotive, Household and Industrial Maintenance Products you use at home have many "cousins" in the service. They travel with allied forces toward every objective, making the going easier.

Whiz

Camden, N. J. • Toronto, Canada

HAVING WONDERFUL TIME

To other Cleveland employers, William S. Jack of Jack & Heintz may seem a labor pirate, but his associates (employees) call him the world's best boss (BW—Mar.7'42,p72). Jack is sending 140 couples on free Florida vacations with pay. Last March, when the Naval Affairs Investigating Committee figured that his excess 1941 profits cost the Treasury $734,480 in lost revenue, Jack offered to cut profits to 6%. Now he says next year's volume on J.&H.'s armament contracts will exceed $100,000,000. Jack, who last week won an Army-Navy "E," claims his 5,000 workers in five plants have the highest record for production in the world.

LABOR

Lewis Switches

Unable to corral a big dairy union, the miner boss turns to the ambitious task of raiding railway labor.

Now that the widely trumpeted John L. Lewis campaign to unionize the nation's dairy farm hands (BW-Apr.18'42, p70) has almost completely petered out (with little to show for it), Lewis stalwarts are moving in on the railroad industry. Two more sharply contrasting fields for union organizing do not exist.

• **Big Battle Due**—With no tradition of collective bargaining, no great local concentration of employees, and few employers of more than a score of workers, dairy farming presented what were apparently insuperable organizing problems to the United Mine Workers field staff. In seeking to raid established railroad unions, Lewis men are girding for a fight, not primarily with employers, but with some of the wealthiest and most deeply entrenched labor organizations in the country.

Initiated last week in Cleveland, international headquarters of the rail brotherhoods, the miners' drive for transportation workers was publicized through a tristate conference of organizers and labor group representatives on the Pere Marquette and New York Central systems, which have been chartered as local units of the newly formed Railway Workers Industrial Union. At the meeting, Lewis spokesmen claimed they already had a nucleus of 13,000 employees who had deserted standard railway labor organizations. The new union's program will be to push its drive until ready to demand bargaining polls on one railroad after another.

• **Financed by Miners**—Under the slogan "one union from pick to throttle," the new organization was promised adequate miner financing and the services of 600 field men. Four regional conferences, in Baltimore, Waterbury, Conn., Charleston, W. Va., and Chicago, have also been scheduled.

Although seasoned labor observers are skeptical of Lewis's latest venture, there is an almost unanimous tendency to credit him with a high degree of cleverness for opening the campaign when he did. Standard rail unions are now in the midst of a campaign for wage increases. They have boiled up a lot of steam over demands for a 20¢-an-hour boost for nonoperating personnel and a 30% raise for trainmen.

• **Lewis vs. Insurance**—It is reasonable to assume that rail labor is going to get substantially less than it is asking, and as always happens in such cases, there will be some rank-and-file resentment. The new organization, with its bargain fees ($2 initiation, $1.25 monthly dues), is going to be standing by to capitalize on that let-down feeling. Lewis organizers are prepared to remind rail workers that Big John got everything he asked when he went to bat for the miners last year.

Biggest deterrent, however, to any great stampede of rail labor into the Lewis camp is the fact that most train employees have insurance policies with their present unions. They can be counted on to hesitate a long time before throwing up these equities and investments.

RAILS WANT NWLB

Railway management apparently has lost its fight to have employees' wage demands handled by the National War Labor Board, instead of following regular machinery of the Railway Labor Act which culminates in an emergency board report to President Roosevelt. Management thought NWLB would be tougher.

With the five operating unions asking a 30% increase and the 15 nonoperating organizations demanding a 20¢-hourly raise and a 70¢-hourly minimum, the carriers made representations to NWLB that it handle the case. They contended that "the standards of the Anti-Inflation Act would be more likely to be applied uniformly by NWLB, which is responsible to Congress and the public . . . than by a special and temporary board of the Railway Labor Panel set up to hear this one case."

The rail unions, of course, promptly protested against deviation from machinery of the Railway Labor Act, and when Roosevelt was asked about it at a recent press conference he agreed that the regular machinery should be continued. A final ruling is not likely for several weeks.

That Extra Something!

...You can spot it every time

SOME jobs, such as fire-fighter on an aircraft carrier, just naturally take something special and out-of-the-ordinary. Producing Coca-Cola is a specialized job, too.

Coca-Cola represents the experience of 57 years in blending Nature's choicest ingredients. It ends thirst quickly. More than that, it brings you an after-sense of refreshment that is mighty satisfying.

The only thing like Coca-Cola is Coca-Cola, itself. Ask for Coca-Cola by its full name or by its friendly abbreviation, Coke.

Kaiser Yells "Bias"

Company enters dispute between C.I.O. and A.F.L. with prejudice charge against NLRB; would take case to NWLB.

The latest move in the case before the National Labor Relations Board involving the Kaiser shipyards in Portland, Ore., and rival union claims of unfair labor practice (BW—Dec.19'42, p97), has developed a situation without precedent. It was touched off by the company's entrance into the case, which, up to this point, has been a squabble between C.I.O.'s shipbuilding union and A.F.L.'s metal affiliates over whether Kaiser's closed shop contracts with the A.F.L. group were collusive and illegal.

• **NLRB to Rule on Complaint**—Charging bias on the part of two of NLRB's three members, Kaiser officials have demanded that the case be transferred to the National War Labor Board. NLRB is preparing to hold a hearing, unique in its experience, to take evidence and rule on the complaint of prejudice.

Basis of the Kaiser allegation is the sworn statement of a company official, which says that board members Millis and Reilly have prejudged the case. The charge rests on testimony that the two board members named offered an opinion, in a conference called to forestall issuance of the original unfair labor practice complaint, that the company had engaged in such practices and the contracts with the A.F.L. were illegal.

• **Premises Attacked**—The company further maintains that steps demanded by NLRB agents, as a prerequisite for stopping the issuance of the complaint, were all premised on the assumption, reached before the company had an opportunity to present evidence, that Kaiser had violated the law.

A.F.L.-C.I.O. JOIN IN PLEA

The joint A.F.L.-C.I.O. bargaining action in five Pittsburgh department stores (BW—Nov.14'42,p98) will bear fruit next week when a National War Labor Board referee hears their unified demands for union security, wage increases, and other advances. Noteworthy because of the close rival union collaboration to obtain a single contract, the case is attracting wide attention.

BONUS RULES CHANGED

To speed rulings on the legality of bonus payments to earners of wages and salaries (up to $5,000 a year), the National War Labor Board has delegated to its regional directors authority to pass on all cases requiring board approval. Previously, the Bureau of Internal Revenue set up rules covering bonuses on earnings over $5,000 (BW—Dec.19'42,p86).

Under NWLB General Order No. 10 (BW—Nov.21'42,p120), bonuses are permissible only under special circumstances or in exceptional cases where nonpayment "would be grossly inequitable and would result in a manifest injustice." A new amendment to that order permits payments, without board approval, to employees entering the armed services.

Truckers' Board

Commission appointed by NWLB assumes jurisdiction over all labor and wage jams in trucking industry.

The fourth tripartite commission established by the National War Labor Board to decide all labor disputes and rule on wage and salary adjustments within an industry began to function this week. It will spread-eagle the trucking industry and take jurisdiction over cases involving the trucking activities of other industries.

• **May Issue Rules**—The newly constituted Trucking Commission will be guided by NWLB policies and orders, and its decisions will be subject to review only by NWLB itself. It is empowered to issue rules and regulations of its own, subject to board approval.

The establishment of the Trucking Commission, following the creation of similar autonomous units which cover the nonferrous metals, Detroit tool and die, and Northwest lumber industries, is a further step in NWLB's decentralization program designed to speed settlement of labor disputes and expedite administration of the pay stabilization program.

• **Speedier Action**—Under the commission setup, which is expected to be expanded to cover other industries and areas, an employer can expect faster treatment of his requests for permission to adjust pay rates. The commissions will short-circuit regional NWLB offices and avoid much of the delay attendant on such clearance, mandatory for non-commission industries.

Unless the commissions decide to set up complete machinery of their own, however, an employer in their industry still must file his original application for permission to adjust pay rates with the nearest Wage-Hour Division office. Agents there will forward it to the industry commission.

• **Paid Officers of NWLB**—The three members of the Trucking Commission are Prof. Howard Meyerhoff of Smith College, representing the public; Landis O'Brien, executive vice president of the CCC Highway Express Co. of Cleveland, representing employers; and Frank Tobin, research director of A.F.L.'s teamsters union, representing employees. All will serve as full-time, paid officers of the National War Labor Board.

AIRCRAFT PAY HEARING SET

The National War Labor Board has set Jan. 8 as the date for a public hearing on a recommended 6¾¢-an-hour average wage increase for employees of eight Southern California aircraft manufacturers. Focus of the hearing will be a lengthy report submitted by Paul R. Porter, chairman of the Shipbuilding Stabilization Committee, who studied the West Coast situation as a special representative of the board.

In many ways this is one of the most vexing wage problems to come before the board, but NWLB hopes to settle the aircraft case within another month. Earlier attempts to stabilize the industry proved fruitless. A War Production Board effort last July resulted in a scrap between such government agencies as OPA, WPB, and NWLB. A second attempt in October was similarly sterile.

Now again, many of the federal agencies, including the War Manpower Commission, are concerned with the problem, but better coordination of policy at this time promises a settlement.

Lumber Pay Set

Commission created by NWLB and WPB orders 90¢ hourly wage minimum in Pacific Northwest camps and mills.

It took war and the creation several months ago, by the National War Labor Board and the War Production Board, of the West Coast Lumber Commission (BW—Sep.19'42,p29) to bring uniformity in wages among 65,000 lumber and plywood workers in Oregon and Washington.

• **Minimum Ordered**—Last week the commission at Portland boosted hourly minimums to 90¢, thereby ending wage advantages the A.F.L. and C.I.O. have enjoyed over each other in certain areas. For a long time, many operations paid more than the previous 82½¢ minimum.

The hottest item the commission had to consider was the retroactive date for the increase. Last spring, when a 7½¢ boost was granted, the A.F.L. received back pay to Jan. 1, due to an existing contract. The C.I.O. had to be content with Apr. 1. The new boost is retroactive for all to Sept. 1, although some A.F.L. workers will receive 2½¢ hourly retroactive to May 1.

• **Payable in Bonds**—A unique provision

'Neath Every Lofty Spire are Four Cornerstones to Keep It in the Sky

Iron men and Iron women—many of them trained by their fellow-workers at Iron Fireman—are turning out a steady and ever-growing stream of finely machined parts for airplanes, ordnance and the navy. Iron Fireman machining capacity has been increased more than 800 per cent.

BACK of the dramatic achievements of Flying Fortresses are hundreds of Iron men and women who make the sinews on which Fortresses fly.

In the engine room of Liberty ships that supply our fighting men in foreign lands are powerful triple expansion steam engines built in the new Iron Fireman engine plant.

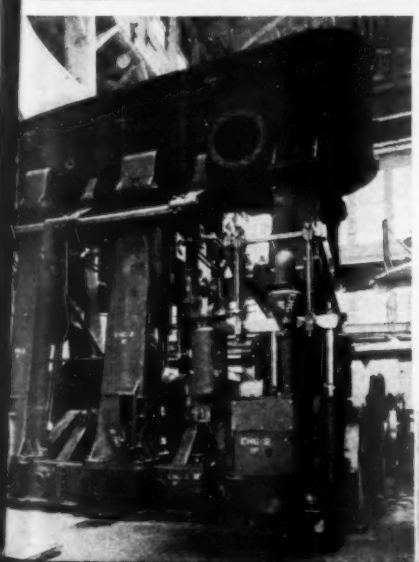
In hundreds of factories that house the men and women of war production are Iron Fireman stokers, converting coal, America's permanent fuel supply, into warmth for workers—into steam for production boilers.

Just as every lofty spire requires four sturdy cornerstones to keep it in the sky, so every famous ship and tank and gun and warplane, requires the help of many groups of workers whose company names do not appear in the finished product.

The production of Iron Fireman workers—their airplane and ordnance parts, marine engines, and coal stokers—are "cornerstone products." You see little of them, but you see much evidence of the results which they help to make possible.

IRON FIREMAN MANUFACTURING CO.
Cleveland; Portland; Toronto

...in 300 parts of Flying Fortress bombers are made by the ...t Iron Fireman plants. You don't see these parts from ...ide, but as Lieutenant-General William S. Knudsen re... when on a trip through the Iron Fireman plant, "With... there would be no Flying Fortresses and no flying."



Many of the Liberty cargo ships, which are sliding down the ways in increasing numbers, are powered by Iron Fireman-built triple expansion steam engines. Taking over an abandoned plant in February, 1942, Iron Fireman transformed it into a modern heavy wartime tool plant and produced the first engine in less than 5 months.

This is the triple expansion engine Iron Fireman builds for Liberty ships. It weighs 270,000 lbs., delivers 2500 horsepower, stands 23 feet high.

Iron Fireman stokers fire millions of tons of low-cost coal each year into production boilers of America, at efficiencies unattainable by other types of coal firing, releasing many man hours for important work. Iron Fireman industrial stokers now being produced for plants in war production and those converting to coal to save oil and gas.

THE IRON FIREMAN

IRON FIREMAN

AUTOMATIC COAL STOKERS

calls for all back pay in war bonds and stamps. The total will be between $3,500,000 and $5,000,000. Belief in Portland is that war bonds were ordered because the commission feared the OPA would protest such a huge outlay of cash.

Lumber operators wanted the order to come in December, so the back pay could be deducted from this year's income taxes.

● **Bait Dangled**—Another provision forces all workers who had quit, except those in the armed services or who left their jobs due to "causes beyond their control," to return to work at the undermanned logging camps and sawmills if they are to benefit by the order. This means many workers will leave the shipyards to claim their back pay.

The commission's order pointed out that it did not raise the scale to the shipyard minimum of 95¢ because, if it had, all war workers on the Pacific Coast would have expected a similar boost.

● **Unions Go Along**—Worth Lowery, international president of the C.I.O. International Woodworkers of America, was "not entirely satisfied" with the order, but is happy over the creation of a standard minimum. Kenneth M. Davis, executive secretary of the Northwest Council of Lumber Workers (A.F.L.), praised the stabilization feature but feels that 90¢ "is not sufficient to create morale necessary for wartime production."

At any rate the new scale is more than double that of seven years ago. When unionization became a factor in Northwest camps and mills, the cry was for 50¢ an hour. Prior to NRA it had been as low as 27¢.

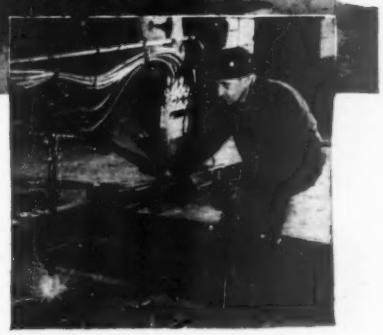
McNutt's Men

WMC boss gathers his staff and splits his office into five operating divisions in order to centralize the work.

Well under way this week was the reorganization of the War Manpower Commission. Taking full advantage of broad powers granted by the President's recent executive order (BW—Dec.12'42, p15), Commissioner McNutt placed the many divisions, offices, and services that have been added to the commission in recent months under full control of five operating divisions. It was a move calculated to streamline WMC work and clearly outline authority and responsibility.

● **Here's the Lineup**—In addition to the Bureau of Selective Service, which previously had been announced, new operating divisions are the Bureau of Placement, Bureau of Training, Bureau of

NEW WAR HORSE . . . lighter and tougher



Photographs courtesy of the Office of War Information and Lukens Steel Company

. . . it's welded!

MOST recent addition to the growing number of war products being built by welding is the new M-4 army tank known as the General Sherman. This powerful modern battle steed, one of the major weapons in America's offensive, is shaped and assembled out of heavy steel by modern welding and flame cutting processes.

Many of the notable improvements in the new M-4 result from its welded design and construction. Its protective armor plating is securely joined at the seams by strong welds that have proved by test and battle performance their ability to withstand heavy punishment. Its lighter overall weight, and faster building time are made possible largely by use of the electric arc and the oxyacetylene flame.

In this new fighting tank as in many other important war machines, further evidence is given of the increasing trend toward welding and cutting as basic manufacturing tools. This widespread recognition of the manifold advantages offered by these modern processes foreshadows their wider use in future peacetime manufacturing.

At present Air Reduction's activities are devoted to furthering war production by effective application of the oxyacetylene flame and electric arc processes. For this purpose its engineering and research facilities are available for practical assistance on welding and cutting problems.

AIR REDUCTION

General Offices:

60 EAST 42nd STREET, NEW YORK, N. Y.

In Texas:

Magnolia-Airco Gas Products Co.
General Offices: HOUSTON, TEXAS
OFFICES IN ALL PRINCIPAL CITIES

IDLE CYLINDERS ARE PRODUCTION SLACKERS: KEEP 'EM ROLLING FOR VICTORY!

Labor Utilization, and Bureau of Program Planning and Control. Another step toward greater centralization within the commission was taken by assigning to the executive director functions of a general manager in charge of all administration and operations both in Washington and in the field.

WMC's general staff is now made up of the following personnel, working under McNutt: Deputy Chairman Fowler Harper; Arthur Fleming, presiding officer of the management-labor committee and acting executive director; Robert Barnett and Byron Mitchell, acting assistant executive directors; Leonard A'Hearn, chief of the budget and administrative planning service; Harold Dotters, chief of the administrative services; Barnard Gavit, general counsel; Lt. Col. Edward Shattuck, assistant general counsel; and Philip Broughton, director of the information service.

• **Bureau Bosses**—Chiefs of the new operating bureaus, in addition to Selective Service Director Major-Gen. Lewis Hershey, are: placement, Glen Brockway; training, W. W. Charters; and planning, William Haber. The director of the Bureau of Labor Utilization is yet to be announced.

BIAS CHARGED IN FIRINGS

The President's Committee on Fair Employment Practice, which has been attempting to blast away labor market barriers that prevent full utilization of minority groups, is embroiled in a controversy with Pittsburgh Plate Glass Co.'s Clarksburg (W. Va.) plant over employment of seven members of the Jehovah's Witnesses religious sect.

On complaints that the Witnesses had been discriminated against, the committee investigated, concluded they had been discharged because of religious convictions, and directed the company to re-employ them. Subsequently, however, at the request of the company and the A.F.L. and C.I.O. unions with which it has contracts, the committee suspended its order and scheduled a hearing in Washington.

Original testimony indicated, according to the committee, that all seven were dismissed because they refused to salute the American flag, one of the tenets of Jehovah's Witnesses being that no man-made symbol merits allegiance. The company now contends the men were fired because of friction with other employees.

In its original reinstatement direction, the committee called on both unions to "maintain an effective control" over any of its members who "may be inclined to molest" the re-employed Witnesses. Getting a commitment from the unions that they will assume such an obligation, and getting full compliance from the rank-and-file may prove two very different things.

FINANCE

It's up—Finally

Stock market approaches New Year at best level of 1942 after reaching lowest point since 1934 during April.

Wall Street got its Christmas present a week early this year. After weaving about unsteadily for more than a month, the market suddenly pulled itself together and marched up to new highs for 1942. With prices gaining a point and a half in a day and volume topping the 1,000,000 share mark, traders hope to close the year on a first class rally.

• **But It Was a Lean Year**—Regardless of how the year winds up, no one in Wall Street is going to feel sentimental about 1942. For traders and brokers alike, it has been a bad time. Except in the closing months, prices remained at the lowest levels since the 1938 slump. Even last fall, the averages were only a few points above the lows they hit when France collapsed in June, 1940.

Worse still from the brokers' viewpoint, volume was light throughout the year, and at times it dried up almost completely. For weeks in succession the averages fluctuated aimlessly with trading too small to give the movements much significance.

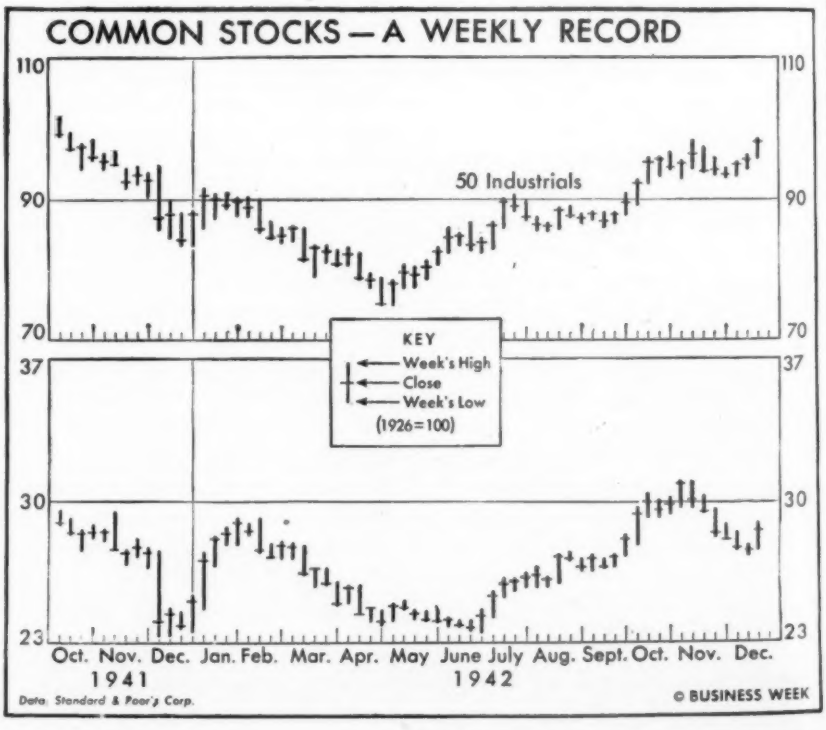
• **Where the Payoff Comes**—But traders win or lose on individual stocks, not on the averages. As the accompanying tabulation shows, this year's market was no exception. While practically all groups followed the general pattern that the averages traced out, the size and timing of their swings varied greatly from one department to another.

The market as a whole began the year on the downgrade. The near panic that followed the United States' entrance into the war had been overcome, but liquidation was in full swing. For the first four months, the averages slid down steadily. By April they had hit the lowest levels since 1934. At that time, Standard & Poor's 90-stock average was about 17% under the fall-of-France low, and the industrials stood some 13% under it (BW—Aug.8'42,p76).

• **And, Finally, a Turn**—On Apr. 28, the market dragged bottom, the industrials hitting 75.2, and the 90 stocks skidding down to 59.3. Then it began a tedious, creeping rise that went on until midsummer. In July, it leveled off again, and for the better part of three months traced out a horizontal line on a plane about 17% above the April lows.

Early in October, prices broke their line with a brisk little rally that carried them up to the best levels of the year prior to the recent spurt. November found the market wavering again, and until last week it remained in the doldrums.

• **The Major Groups**—On balance, prices have gained about 11% over the year, but measuring from the Apr. 28 bot-



FOR VICTORY TODAY AND SOUND BUSINESS TOMORROW

Get This Flag Flying Now!

This War Savings Flag which flies today over companies, large and small, all across the land means *business.* It means, first, that 10% of the company's gross pay roll is being invested in War Bonds by the workers voluntarily.

It also means that the employees of all these companies are doing their part for Victory . . . by helping to buy the guns, tanks, and planes that America and her allies *must* have to win.

It means that billions of dollars are being diverted from "bidding" for the constantly shrinking stock of goods available, thus putting a brake on inflation. And it means that billions of dollars will be held in readiness for post-war readjustment.

Think what 10% of the national income, saved in War Bonds now, month after month, can buy when the war ends!

For Victory today . . . and prosperity *tomorrow,* keep the War Bond Pay-roll Savings Plan rolling in *your* firm. Get that flag flying now! Your State War Savings Staff Administrator will gladly explain how you may do so.

If your firm has not already installed the Pay-roll Savings Plan, *now is the time to do so.* For full details, plus samples of result-getting literature and promotional helps, write or wire: War Savings Staff, Section F, Treasury Department, 709 Twelfth Street NW., Washington, D. C.

EVERYBODY EVERY PAYDAY AT LEAST 10%

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This Space Is a Contribution to America's All-Out War Program by

BUSINESS WEEK

Wall Street's Merry Christmas

For nearly eight months now, the stock market has been working its way up after breaking through the fall-of-France low at the end of last April. At current prices, the market as a whole stands about 11% above its level at the beginning of the year and a good 30% above the spring bottom. Movements of the component groups have varied widely, however. Most impressive gains were scored not by war babies but by stocks that stand to benefit from a fairly early peace. Comparison of the 1941 close with the Apr. 28 low and with current prices follows:

	1941 Close	April, 1942, Low	Current Price	Percent Change From 1941 Close	Percent Change From April, 1942
Aircraft	24.3	19.1	20.0	−17.7%	+ 4.7%
Airlines	21.9	15.3	29.0	+32.4	+89.5
Amusements	13.7	13.6	19.3	+40.9	+41.9
Arms, ammunition	71.5	49.7	57.0	−20.3	+14.7
Automobiles mfg.	20.1	20.5	25.6	+27.4	+24.9
Auto accessories	22.7	20.9	25.8	+13.7	+23.4
Building materials	20.8	20.3	25.0	+20.2	+23.2
Business machines	36.0	30.4	41.4	+15.0	+36.2
Candy, beverages	29.6	25.2	34.8	+17.6	+38.1
Carpets, rugs	12.5	11.5	17.0	+36.0	+47.8
Chemicals	62.1	48.9	63.2	+ 1.8	+29.2
Coal	10.6	9.3	10.4	− 1.9	+11.8
Containers	27.4	26.7	34.5	+25.9	+29.2
Electrical equipment	31.9	26.1	33.1	+ 3.8	+26.8
Farm machinery	31.4	28.1	38.3	+22.0	+36.3
Foods	24.8	20.5	26.0	+ 4.8	+26.8
Gold mines	19.4	15.8	20.3	+ 4.6	+28.5
Investment trusts	8.8	7.6	10.3	+17.0	+35.5
Leather, shoes	16.0	13.6	16.4	+ 2.5	+20.6
Liquor	21.6	19.8	27.2	+25.9	+37.4
Machinery	15.2	12.7	14.3	− 5.9	+12.6
Mail order	26.9	23.7	32.9	+22.3	+38.8
Meatpacking	12.6	11.6	13.5	+ 7.1	+16.4
Metals	30.1	25.7	28.5	− 5.3	+10.9
Paper	14.3	12.5	12.5	−12.6	.....
Petroleum	18.7	14.6	20.8	+11.2	+42.5
Railroad equipment	16.6	14.3	16.0	− 3.6	+11.9
Shipbuilding	25.1	20.9	19.4	−22.7	− 7.2
Shiplines	23.6	19.1	23.8	+ 0.8	+24.6
Steel	31.9	26.9	29.7	− 6.9	+10.4
Stores, dept.	14.2	12.2	14.4	+ 1.4	+18.0
Stores, dept. chains	30.4	21.9	29.3	− 3.6	+33.8
Stores, food chains	28.4	23.4	27.4	− 3.5	+17.1
Stores, variety	14.1	12.8	15.2	+ 7.8	+18.8
Sugar	17.8	15.5	16.6	− 6.7	+ 7.1
Textiles, wool, cotton	16.3	15.5	18.6	+14.1	+20.0
Textiles, rayon	19.0	16.3	25.1	+32.1	+54.0
Tire, rubber	11.6	13.1	22.9	+97.4	+74.8
Tobacco	37.6	29.4	37.0	− 1.6	+25.9

tom, they show a rise of 30%. Industrials are now 12% above their starting point, and 30% above their low. Rails, which held up better than the rest of the market last spring, show a gain of 14% for the year, but they are only 19% over April levels. Utilities, hardest hit by the decline, now stand a scant 6% above the beginning of the year, but show a 30% rise since April.

In the breakdown by individual stock groups, rubber companies are the high scorers. Their prices came within a couple of points of doubling during the year; since April they have gained 74.8%. Rubbers began the year in the doghouse, and hit bottom when it became obvious that the Japanese would take Singapore and Malaya. By April they were already groping their way upward. Progress with synthetics and better news from the South Pacific supported their steady climb for the rest of the year.

• **The Motors' Record**—Automobile manufacturing was another group that hit its bottom before the rest of the market. Low point for the motors came around the beginning of the year when passenger car output stopped and the companies began the expensive job of converting all their facilities to war production. In April the automobiles group stood a shade above its 1941 close. At current prices it is 27.4% above the beginning of the year and 24.9% up from April.

Airlines set the record for fast recovery from the spring lows. In the past eight months, this group has shot up 89.5%. Much of the gain was rebound, since airlines were one of the worst sufferers during liquidation early in the year. Nevertheless, they now show a 32.4% gain over 1941 closing prices.

• **War Babies Suffer**—In many respects, the airlines are representative of so-called peace stocks, those that stand to suffer most from a long war and the accompanying belt-tightening in the country's war economy. In the first four months of the year, stocks slid lower

SO SORRY, PLEASE

From Japanese broadcasts comes an announcement that should console a lot of the Wall Streeters who got whipsawed in this year's erratic market. The Imperial Finance Ministry has decided to close down both the Tokyo and Osaka stock exchanges, replacing them with a government controlled clearing house for securities. The reason: Japanese markets have been on the skids since the battle of Midway. The government was losing face, and the investors were losing their kimonos. Hence, the Finance Ministry has decided to get itself an exchange where the prices can't go any way but up.

and lower as war news continued discouraging. By April most of them were overdiscounted, and the market was set for a correctional rally. As the military situation improved and the tax outlook brightened, prices gradually worked back up. Wall Street obviously holds high hopes for them once peace comes.

On the whole it was a bad year for war babies. General weakness in the market pulled them down during the early months, and hopes for a relatively early peace made them lag when the market finally turned upward.

• **Tough on Shipbuilders** – Heaviest losers in the year were the shipbuilding shares, which now stand 22.7% under their 1941 close. Although the shipbuilding companies are doing an enormous volume of business, they are particularly vulnerable to excess profits taxes. Their percentage return on present business is comparatively small, and most investors think they are due for a trying time as soon as peace comes.

Two other groups of war babies that got rough treatment from the market were arms manufacturers and aircraft companies. Arms and ammunition dropped 20.3% during the year, and it now stands only 14.7% above April. Aircraft lost 17.7% over the period; since April it has gained only 4.7%.

ANTI-INSURANCE STRATEGY

Although the federal investigation of stock fire insurance companies has already produced one indictment (BW—Nov.28'42,p96), the main issue still hasn't come up in court. A week ago the Department of Justice suddenly cut the ground from under the defendant companies by withdrawing its subpœnas. This gave the companies no opportunity to bring up their big guns and challenge federal jurisdiction over the insurance business.

Underwriters think that the govern-

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Business Week—December 26, 1942

BUSINESS WEEK ADVERTISING SALES OFFICES

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DETROIT
2-144 General Motors Bldg.
LOS ANGELES
601 W. 5th Street
NEW YORK, 330 W. 42nd St.
PHILADELPHIA
16 So. Broad St.
SAN FRANCISCO
68 Post St.
ST. LOUIS
Paul Brown Bldg.

ment's main object in opening the case is to overturn a line of cases holding that insurance is intrastate business not subject to federal regulation. Now that the Justice Department has an indictment against the Southeastern Underwriters Assn., it is assured of a chance to argue the point in court. Hence it could afford to withdraw its other subpoenas.

SEC Eases Up

Storm of protest brings changes in proxy regulations, making reports simpler but income figures necessary.

There was no rationing of sugar-coating when the Securities and Exchange Commission finally brought out its revision of regulations governing proxy solicitation. Final version of the rules is a mild dose in comparison with the first draft which brought a chorus of angry protests from business men and security dealers (BW—Sep.19'42,p95).

• **Paper Work Cut**—Moreover, SEC coupled announcement of the new rules with extensive simplification of its registration and reporting requirements. Many corporations will find that the new setup requires less paper work.

Main feature of the revision is an expansion of the rule requiring disclosure of management compensation. After Jan. 15, firms soliciting proxies must give stockholders a statement listing all directors and officers and showing how much each is paid. Only exceptions are officers earning less than $20,000 a year.

• **Income Listings Required**—This requirement drew a lot of fire when SEC presented a tentative draft of the rules to business men, asking for comments. Under the old rules, a company didn't have to reveal a director's compensation except when he came up for reelection, and then only if he was one of the three highest paid men in the company. With dividend cuts hanging over them, a number of executives think it would be well not to call stockholders' attention to management's share of the income.

SEC stuck by its guns on the question of revealing compensation, but compromised on most of the other points. Instead of requiring a proxy to include a detailed financial statement for the past year, the new rules merely specify that stockholders must receive regular annual reports before the proxy requests.

• **Proxies Get 100 Words**—The commission also backed water on rules defining the rights of minority stockholders. It stipulated that a stockholder making a proposal for action be allowed 100 words in the proxy to explain his motion.

THE TRADING POST

Shipbuilding Records

With all the headlines about 10-day ships and 4-day ships and what-not, many a practical business man wants to know what it all means in terms of sustained, consistent production of ships. He judges shipbuilding as well as other performance not by one-time stunt records but by the regular average output that a plant can maintain month in and month out.

So it is helpful to find in the Nov. 12 issue of "Fore 'n 'Aft," house magazine of Henry Kaiser's Richmond Shipyards, an answer to just that question.

The issue tells about the production of Hull 440, better known as the Robert E. Peary, still better known as the 4-day ship. Then it goes on to give the following data:

Total man-hours used in both prefabrication and erection:	
Hull 440	100%
Average of 10 hulls preceding Hull 440	106%
Average of first 10 hulls built in yard	125%
Keel to launching time:	
Hull 440	4 days 15 hours 26 min.
Average of 10 hulls preceding Hull 440	40.6 days
Average of 10 hulls succeeding Hull 440 (scheduled)	34.8 days
Average of Hull 440 and 10 next hulls (scheduled)	31.9 days
Percent of hull prefabricated:	
Hull 440	61%
10 hulls preceding Hull 440	41%
Percent of hull built on shipway:	
Hull 440	39%
10 hulls preceding Hull 440	59%

The Narrow Line

A letter from the manager of a Midwest association of general contractors:

I was glad to note your comments in the Trading Post of your Dec. 5 issue on the subject of bureaucracy and what you have referred to as "government by intimidation." For I have been struggling between decisions on advising members of this organization as to compliance with the various regulations required as opposed to insistence on practical methods for the industry to follow.. It is hard to walk the narrow line which divides the objective of the war effort on one hand from constructive criticism on the other.

A further thought that has occurred to me is the fear that acceptance of regimentation through rationing and other types of regulation will become so widespread that we may for the first time in our history lose the individualistic attitude for which the American people have been noted. Unless those of us who see the dangers in this program work hard in the postwar period, we may see this sort of thing continued and may lose forever some of the most important characteristics that have been a factor in our growth as a nation. I have not thought this thing through as yet well enough to express it very well but your discussion certainly struck a responsive note.

Postwar Challenge

On the last day of the recent War Congress of American Industry held under the auspices of the National Association of Manufactures, *H. W. Prentis, Jr., president* Armstrong Cork Co., delivered an address entitled "The Way to Freedom."

The concluding paragraphs of that address offer a pointed statement of the post-victory challenge to American institutions as it appears to one thoughtful industrialist. They read as follows:

Whether in business leaders or government officials, too great lust for money or prominence or power is equally corroding on personal character. Only in so far as these tendencies are held in proper restraint by the unselfish desire to serve their fellowmen, can either group measure up to the requirements of true citizenship. The greater the degree of intelligent, far-seeing social responsibility exercised by business men, the less the amount of coercive control that power-seeking government officials will be able to secure. For representative democracy rests on the principle that men who have acquired freedom through exercise of wisdom, will voluntarily abide by general principles of fair play with a minimum of statutory regulation and governmental control. All of us in industry know that a leader always achieves infinitely better results than a driver. Democratic self-government is founded on the same conception.

When the war is over, America will possess more manufacturing facilities, more new materials, more skilled labor, a greater pent-up demand for goods of every description, a larger reservoir of savings, than she has ever had in her history. We must capitalize that opportunity in typical American democratic fashion, if the way to freedom is to remain intact. There is only one way to do it: Solve the dilemma of preserving personal liberty, stimulating individual initiative, and creating economic security for the masses by releasing the vast forces of a socially conscious private enterprise system, impregnated from top to bottom with a vibrant sense of social stewardship, which will measure its achievements not merely by the balance sheet but also in terms of its success in applying the practical precepts of the Golden Rule and the Sermon on the Mount. Either business leadership will adopt this solution of its own volition, or the way to freedom will be gradually destroyed by state socialism coming as a wolf in sheep's clothing under the guise of compulsory economic planning. The voluntary assumption of social responsibility in a democracy is the keystone of all liberty. Woodrow Wilson meant just that when he said that "democracy is conduct, and its only stable foundation is character." W.C.

THE TREND

RATIONING IS A PUBLIC RELATIONS JOB, TOO

The current crisis in Congress-OPA relations, which has led to Mr. Henderson's resignation, is attributable to more than one factor. Some congressmen dislike the Administrator personally; some resent the lack of patronage in OPA; some feel special-interest pressure, from farmers, small retailers, etc.

But more than anything else, congressmen have been sensitive to the widespread irritation felt by the public with the workings of price control and rationing at the consumer, man-in-the-street level. Many agree with what Henderson's successor said the day after the election made him ex-Senator Prentiss Brown: "I feel that the trend away from the Democrats was caused by dissatisfaction of the public with rationing, etc., brought about by the war." Rationing and price control, essentially popular in the abstract, have become widely unpopular in the concrete and are today weak points in the Administration's political armor.

• **The cause of all this,** simply enough, is the war. By booming demand and cutting supply, by creating one general and a multitude of specific shortages, it has destroyed the normal distribution system. To OPA has fallen the task of reshaping that distribution system for war.

But, the public has confused the cause, the war and its shortages, with the effect, rationing and price control. Also, in the nature of the case, no administrative reshaping could be as efficient as the peacetime marketplace—particularly when the speed of the war's impact thrust the assignment on the Office of Price Administration in such haste that inevitably mistakes of omission and commission were made.

The first shortage the war created was in sugar. And, though rationing seemed equitable, the coupon system in many cases served to aggravate the effect of the shortage. Some consumers who customarily bought pastry and preserves at stores and ate meals at restaurants got more sugar on coupons than they needed, while their neighbors often were forced to suspend home preparation of food. That kind of thing led to a disbelief in any real shortage. When coffee became tight, and hoarding began, and queues formed at stores, the criticism was that OPA had delayed too long. But after the ration was introduced, the same variation in effects upon different individuals led to further irritation.

• **The handling of gasoline** and fuel rationing has given rise to even more complaints. Each time the supply situation worsens—as tankers are withdrawn, or rail shipments decline, or the military draw on stocks—OPA is blamed for the necessary tightening. And, because rations are presumably variable with need, and needs are determined by humanly fallible local ration boards, there has been even more occasion for individual inequities.

The retail price-freeze has multiplied the opportunities for aggravation. For one thing, a price-freeze at March levels solidified local and temporary variations in wholesale and retail prices. When, as in the case of meat, supplies ran short, the price system could not adjust to the changed supply-demand relations. Then, variations in March price levels naturally caused packers to concentrate shipments to the areas and stores giving most profitable margins, to the detriment of the least profitable. The result: inequitable distribution and more irritation.

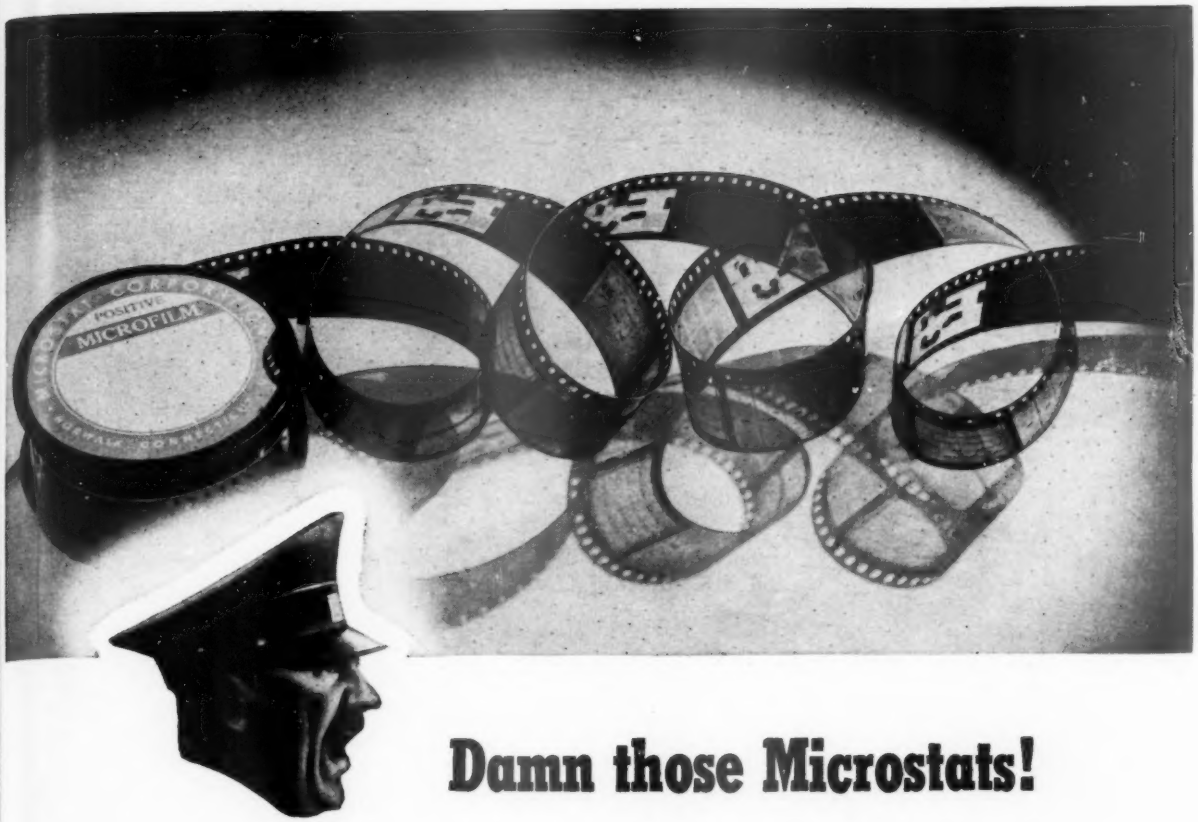
• **What's more, prices generally** have advanced in spite of the freeze. Consumer policing of the retailer—OPA's big hope—has flopped. Consumers have been unable to police, even when they wanted to, because of the difficulty in keeping track of March ceilings from store to store and item to item in the face of piecemeal official price punctures, especially in the face of upgrading of lines, lowering of quality, and other "hidden" price-boosting devices. Many persons have come to feel, in the presence of black markets, that price control is a macabre joke.

Certainly, OPA is and has been taking steps to correct errors, to institute more workable procedures. In gasoline, the obvious loophole was finally plugged when coupons were made detachable and retailers were required to turn them back to wholesalers in order to obtain more supplies. For meat, OPA has been working out a complex "point" system in order to handle rationing more intelligently. On prices generally, the agency has been pressing for standard products and grades, for which more and more uniform prices and markups have been set—all in order to facilitate consumer checking and understanding of particular ceilings.

But, is OPA moving fast enough along these lines? After all, the whole point of its job is to prevent the helter-skelter struggle for goods and economic returns which inflations threatens—a scramble that saps morale and diverts energies from the war effort. But that same ultimate discommodation can be created in the attempt to prevent it.

• **That is Congress's warning** to OPA—to deal more closely with the human side of the distribution system, not merely with statistical price indexes and statistical supply-demand accounts. The Administration's new public relations policy, to educate the public more fully to the inescapable difficulties inherent in shortages, rationing, and price control, will help. Of this Mr. Byrnes's new activity in the field of gasoline and fuel oil is the first example. As Mr. Byrnes has pointed out, primarily we've got to see where our procedures have been wrong, and then set them right.

The Editors of Business Week



Damn those Microstats!

HITLER'S AGENTS have their instructions: "Get the *papers,* never mind the plants."

America's entire war production is built around paper records, tracings, blueprints, card files, bills of material, and so on. If we lose these papers we lose the plant... if we lose the plant we lose production... if we lose production we lose the war!

Axis plotters and their secret sympathizers know that a general slowdown or shutdown of American production plants—*if accomplished by destruction or theft of vital records*—would aid the Axis more than any other program they could launch.

But management men in American Industry are issuing instructions of their own: *"Duplicate the papers on safety microfilm—and hide the film."* More than 300 of America's leading industrial plants, by their own executive order in each instance, have called in Microstat cameras and operators to duplicate literally tons of their valuable papers on precision microfilm. These companies already have hidden the small rolls of Microstat microfilm where Hitler, Tojo & Company never can find them.

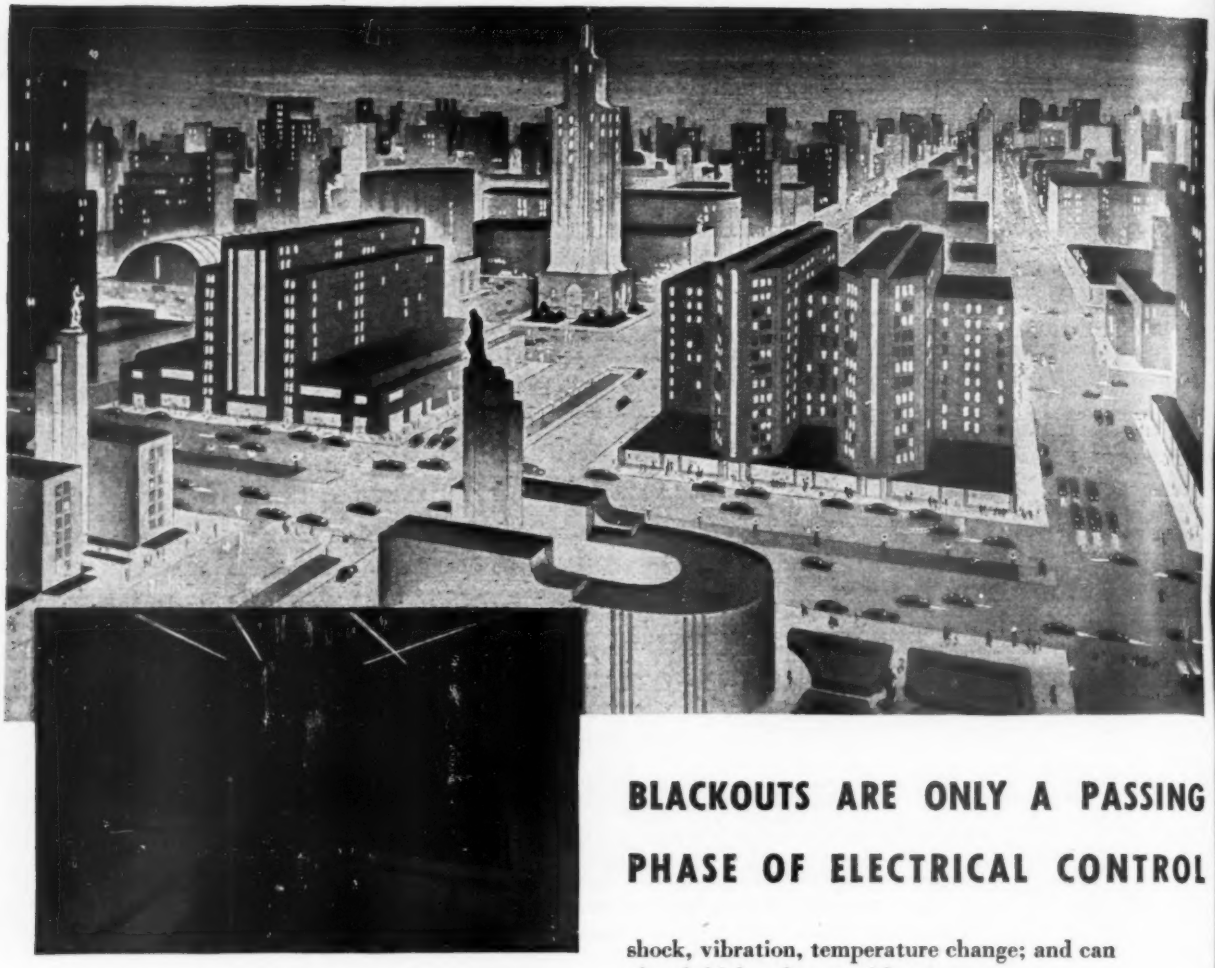
So now, if Hitler steals the papers, or if Tojo burns them, or if they disappear from any cause, the films are put back through a Microstat camera and, presto!—war plants lose no time nor production for lack of records, because Microstat delivers exact full size photographic replicas of all destroyed or lost records, accurate to the last line and dot. This is done in a hurry, usually before the last fireman leaves...

..and only Microstat can do it!

MICROSTAT
REG. U. S. PAT. OFF.
PRECISION MICROFILMING

Complete Plants COAST to COAST ★ SAN FRANCISCO • LOS ANGELES • SAN DIEGO • CLEVELAND • CHICAGO
NEW YORK • PHILADELPHIA • PITTSBURGH • DETROIT • NORWALK ★ **Microstat Corporation, Norwalk, Conn.**

Looking ahead with Asbestos



BLACKOUTS ARE ONLY A PASSING PHASE OF ELECTRICAL CONTROL

● If far-visioned men have their way, the post-war world will need—and use—more electrical power than a world at war.

In that tomorrow's world, K&M's Ebonized Asbestos is destined to continue its vital function of electrical control.

For K&M Ebonized Asbestos—asbestos fibre, binding cement and insulating compound molded under pressure—is an ideal material for electrical installations, all the way from huge switchboard panels to tiny switches. Ideal—because it can withstand severe electrical shock, vibration, temperature change; and can absorb high voltages without puncture.

Just now, such needs of war as fighting craft and war industries make it necessary for civilian production to wait awhile for K&M's Ebonized Asbestos. With the coming of peace, however, it will be generally available again—along with those new asbestos products which will emerge from K&M's constant research with Nature's strangest mineral.

* * *

Nature made asbestos;
Keasbey & Mattison, America's asbestos pioneer,
has made it serve mankind . . . since 1873

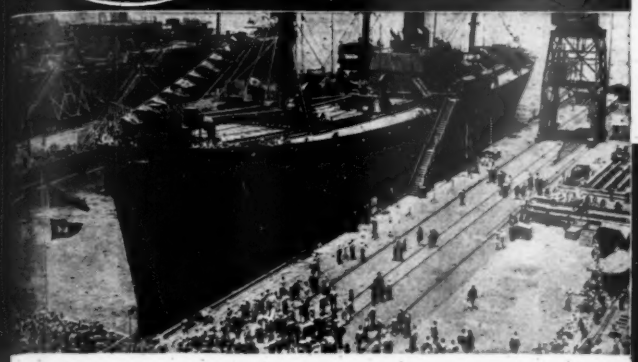
KEASBEY & MATTISON
COMPANY, AMBLER, PENNSYLVANIA

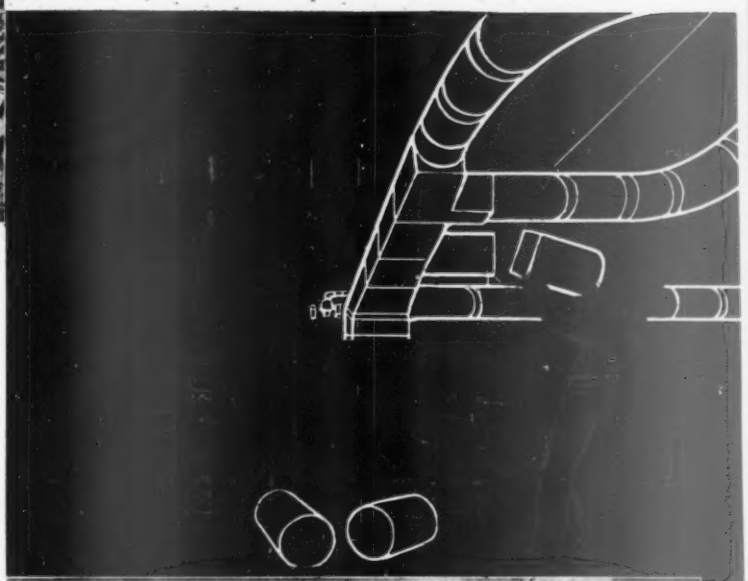
Makers of

asbestos-cement shingles and wallboards; asbestos and magnesia insulations for pipes, boilers, furnaces; asbestos textiles; asbestos electrical materials; asbestos paper and millboard; asbestos marine insulations; asbestos acoustical material; asbestos packings; asbestos corrugated sheathing and flat lumbers; asbestos-cement pipe for water mains

K&M best in asbestos

ZINC PRESERVES IRON AND STEEL FOR BOTH SHIPS AND HOMES





…her applied on ventilators for Liberty ships or on air …for the home, zinc is "by far the best protective metallic …g for the rust-proofing of iron and steel."* With the …rvation of steel so essential in a wartime economy, the …ctive qualities of galvanizing (zinc coating) are greatly …asized.

…e zinc occupies a place above iron in the electromotive …corroding agents such as moist air, water and damp …ill attack zinc in preference to iron, thereby protecting …n from rust. As long as any zinc remains (a considerable …f the original coating thickness is adequate) rusting of …steel does not occur even at scratched or cut edges of a …ized coating.

…ing advantage of the same properties of zinc, a Govern… …pecification calls for zinc dust paint for the priming of …ized surfaces which require painted finishes. Research …e New Jersey Zinc Company on metal protective paints …d to the development of variations of zinc chromate and …ust pigments to serve where galvanizing is not practical.

…reau of Standards (Circular 80)

…E NEW JERSEY ZINC COMPANY

…FACTURERS OF THE FAMOUS HORSE HEAD ZINC PRODUCTS

160 FRONT STREET, NEW YORK CITY

YOUR SAVINGS IN WAR BONDS WILL HELP TO PROTECT WAR STEEL

An $18.75 WAR BOND BUYS THE ZINC TO HOT-DIP GALVANIZE A STEEL SURFACE OF OVER 1,000 SQ. FT.

…INC IN WAR—AND AFTER — Today, zinc is indispensable in the following war materials:

brass cartridge cases • rubber products • galvanized coatings • paint • die castings

ceramics • stamping dies • pharmaceuticals • hull and deck plates • sprayed metal coatings

…T US TELL YOU HOW ZINC PRODUCTS WILL FIT INTO YOUR FUTURE PLANNING

Call Clarage!

for EXPERT HELP on any WAR-TIME AIR-HANDLING PROBLEM

To give ***immediate assistance*** to our Government— and to industry engaged in vital war-time production — Clarage maintains application engineering offices at all the strategic points indicated on the map above.

Each Clarage branch office is ***manned by experts*** — by capable engineers long experienced in successfully meeting air-handling requirements of every conceivable kind.

On hundreds of America's fighting and cargo ships, in Army tanks, and in war plants from coast to coast — wherever DEPENDABLE ventilation, cooling, mechanical draft, etc., are essential — ***there fans, blowers and allied equipment built by Clarage play their part.***

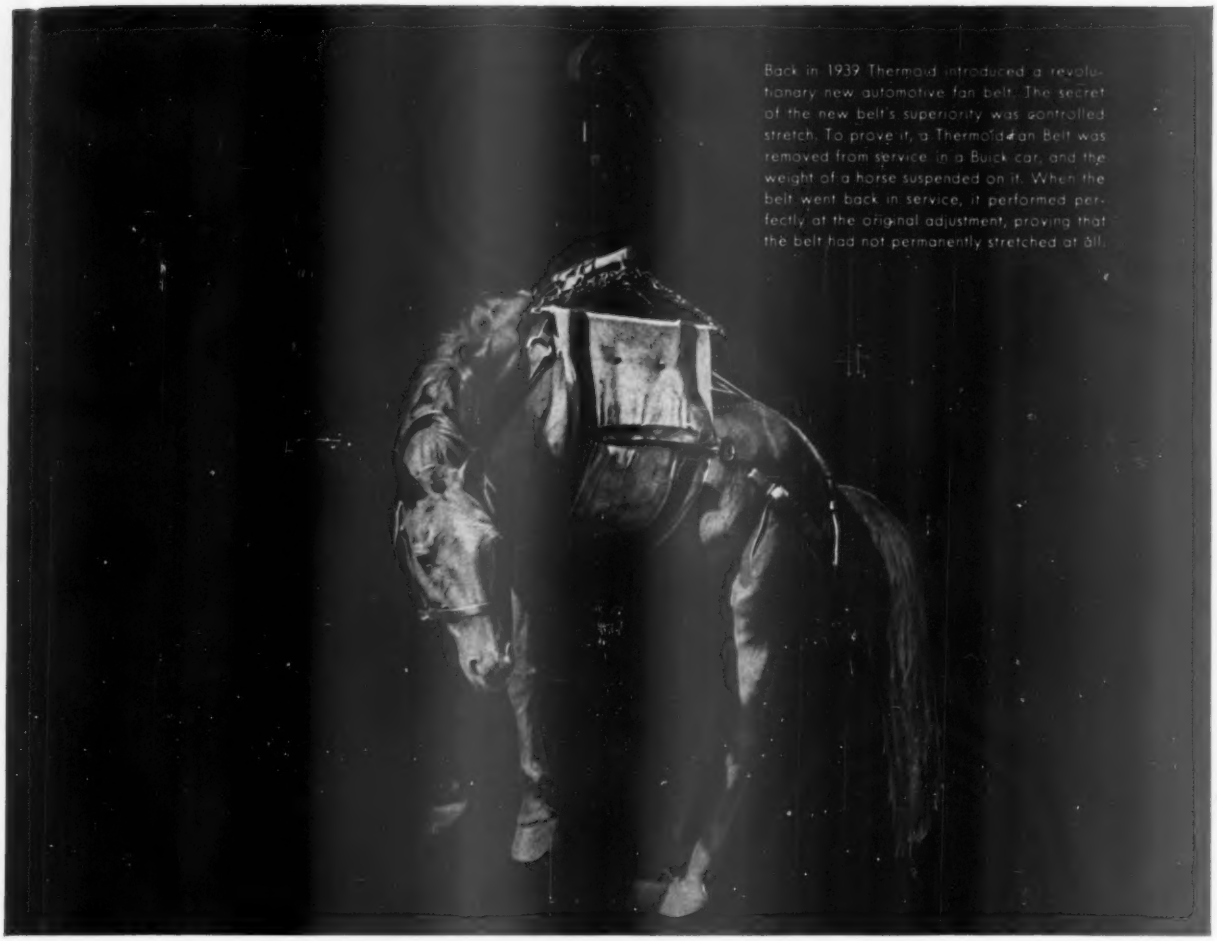
We're on our toes to help you! We're trying hard to maintain a prompt, intelligent, satisfactory war-time service — all the way from initial recommendation to delivery.

It will pay you to dial our number in your city, or phone or write the factory at Kalamazoo.

COMPLETE AIR CONDITIONING
•
COOLING
•
VENTILATION
•
FACTORY HEATING
•
MECHANICAL DRAFT
•
FANS and BLOWERS for INDUSTRIAL NEEDS

Clarage Fan Company Kalamazoo, Mich.

APPLICATION ENGINEERING OFFICES IN ALL PRINCIPAL CITIES



HERE'S A HORSE OF A DIFFERENT COLOR

YOU probably remember this symbol which introduced the dramatic Thermoid V-Belt development in automobile fan belts.

This time we use it to emphasize to Industry the fact that Thermoid Multiple V-Belts and Fractional Horse Power Belts for industrial drives are also "A Horse of a Different Color."

Here's why:

The technique of building Thermoid V-Belts has accomplished two major improvements: (1) The well-known tendency of these belts to s-t-r-e-t-c-h has been brought under control. (2) The difference between the individual belts of a set—which makes one belt of a multiple drive carry the load—has been eliminated.

- Thermoid V-Belts are uniform in weight and strength, at every point—perfectly balanced.
- They are built to close tolerances of cross-section volume to length (controlled *mass*).
- They have no weak spots or sections.
- They distribute the load efficiently within the belt.
- They are built with pre-determined and controlled stretch.
- They are *ten times* as strong as their respective loads require. (Each size of Thermoid V-Belt is strain tested to ten times its normal load, insuring long service life.)

The details of how the strength and life span of V-Belts have been improved—and how a new degree of uniformity has been achieved—can be read in the "Thermoid V-Belt Drive Data Book," which will be sent on request. Thermoid Rubber, Division of Thermoid Company, Trenton, New Jersey.

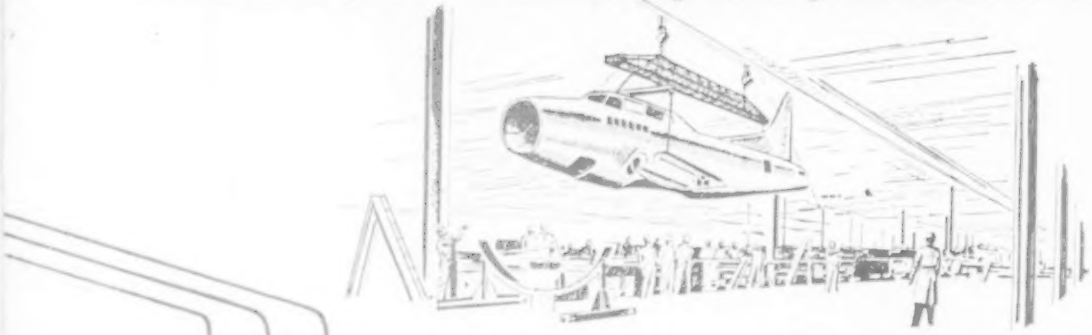
Thermoid Rubber

THE THERMOID LINE INCLUDES ALL INDUSTRIAL RUBBER AND FRICTION PRODUCTS
ALL TYPES AND SIZES OF WRAPPED AND MOLDED HOSE • CONVEYOR BELTING • FLAT TRANSMISSION BELTING • ELEVATOR BELTING • MULTIPLE V-BELTS AND DRIVES • SHEET PACKINGS • INDUSTRIAL BRAKE LININGS FOR HOISTS, ELEVATORS AND INDUSTRIAL MACHINERY
(FOR BUSES, TRUCKS, MOTOR CARS AND MOBILE SERVICE EQUIPMENT—
BRAKE LININGS • FAN BELTS • CLUTCH FACINGS • RADIATOR HOSE)

★ ★ ★ IT'S GOOD BUSINESS TO DO BUSINESS WITH THERMOID ★ ★ ★

VETERAN TURBINE drafted

. . . and 50,000 extra horsepower provided for war industry



WESTINGHOUSE ENGINEERING SERVICE

A nationwide corps of engineers offers you electrical and production experience gained through years of working with your industry.

In addition to engineering help on specific industry problems involving electrical power, these men can give you assistance on these other vitally important activities:

Product development: engineering of equipment to meet war requirements.

Maintenance: help in making existing equipment serve better, last longer.

Rehabilitation: redesigning and rebuilding obsolete equipment for useful service.

Material substitution: adapting available replacements for critical materials.

W.E.S. is available to *all* industries. Put it to use today on your production problems.

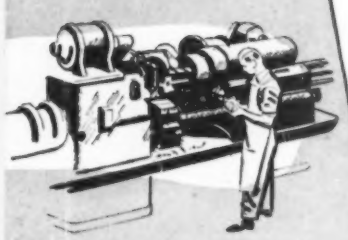
Power companies are faced with a difficult problem. War industry needs more kilowatthours for production. The need is urgent and immediate. Yet, power companies have found it difficult or impossible to obtain new generating equipment. The raw material shortage is serious.

Working in co-operation with power companies, Westinghouse engineers have found one practical solution to increased power demands—a program of rehabilitating old equipment.

In one case a 30,000 kw turbine, installed during the last war, had been virtually retired from service. Rebuilt by Westinghouse, it is now back on the job with its capacity increased 33⅓%. Instead of 30,000 kw it is delivering 40,000 kw—more than 50,000 horsepower that industry would not otherwise have, with no new equipment available.

This is typical of the work Westinghouse engineers are doing today. They are working closely with engineers in all types of industries to uncover more ways to do more with less. You can avail yourself of such engineering services by calling the nearest Westinghouse office. You'll get complete and immediate co-operation. Westinghouse Electric & Mfg. Company, East Pittsburgh, Pa. J-94516

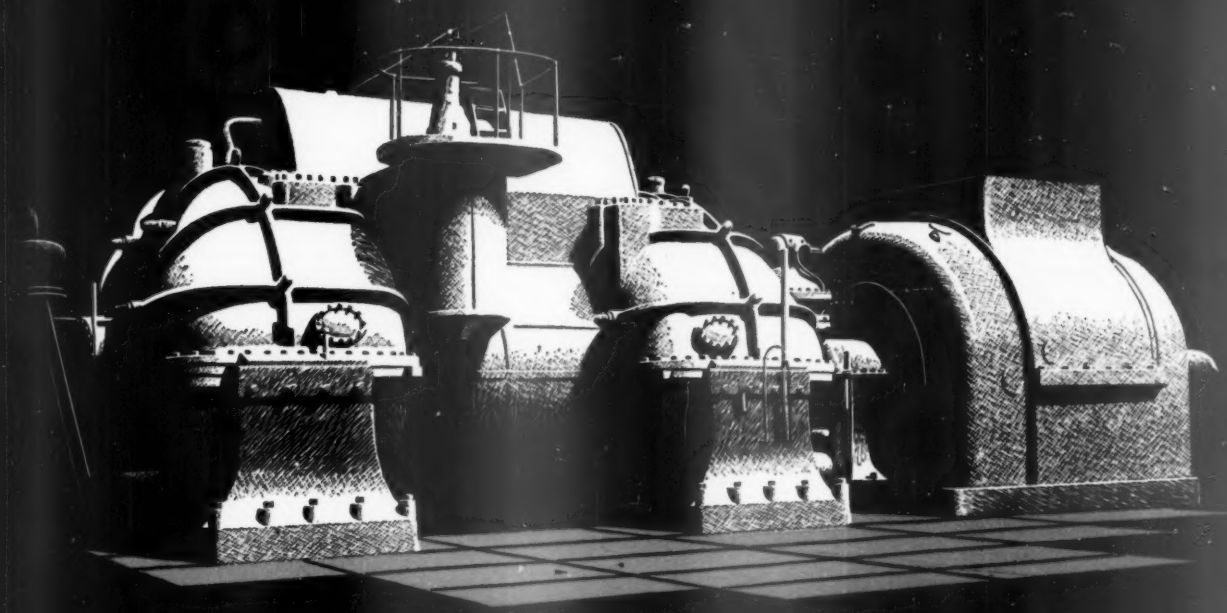
Westinghouse



W.E.S. for the RUBBER industry

A new horizontal bias cutter could achieve an operating speed of 30 cuts per minute, provided drive controls could be co-ordinated for that speed. Westinghouse engineers developed a "Quick Response" adjustable voltage system for two d-c motors, used with an a-c motor designed for faster acceleration and retardation. The new machine operates at its maximum design speed.

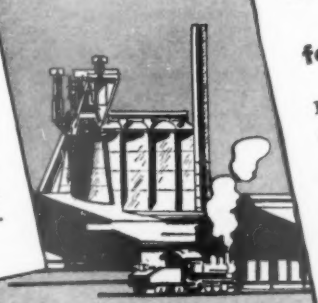
Another Story of W.E.S. *at Work*



W.E.S.

for STEEL mills

A major steel company called on Westinghouse for help in engineering the drive for a mammoth 160" plate mill. After experimental plates had been produced on an existing mill, a twin-motor drive was adopted. Soon, the first large reversing plate mill ever powered with a twin-motor drive will be serving up armor plate more than 13 feet wide. And it will be turning plate *faster* than ever before.



W.E.S.

for MACHINE TOOL builders

Demand for higher speeds in an automatic screw machine resulted in excessive maintenance cost and time requirements. Redesigned by the manufacturer with Westinghouse co-operation, the machine now has electrical control substituted for mechanical control at many points. Today, it is meeting wartime production demands, with minimum maintenance.

MORAL: Solve your gift problems at Yuletide with the Classified.

This season many of the useful gifts you may be thinking about will be "hard to find."

That's why the Classified section of your Telephone Directory will be more helpful than ever. It lists the names, addresses, and telephone numbers of your local tradespeople according to products and services.

Before you go shopping look in the Classified for the things you want. Save time, tires and gas. And use the Classified the year around, too!

ABOUT YOUR TRADE MARK

One simple way to keep your trade mark in the homes of your customers and prospects is offered by the Classified section of Telephone Directories. You can display your trade mark and list local outlets in the Directories that cover your markets.

Many firms in varied lines are finding an especial war time value in keeping their trade mark before the public in this manner . . . finding that it also helps their dealers stay in business and retain public good-will.

More service business for dealers

This indentification plan enables your Company to direct customers and prospects to *authorized* outlets for sales and service. Thousands of dealers are enthusiastic about the business they receive through their local Telephone Directories. It helps them to 'carry-on' for the duration.

Obviously people are consulting the Classified Directory more than ever — for many products are becoming increasingly difficult to replace, and they're concerned with keeping what they have in good repair.

← Just about everybody uses the Classified

This cartoon advertisement is one of a series that appear in four national magazines throughout the year. It helps to promote even more frequent use of the Classified, and that means more customers for the concerns and dealers who are represented on its pages.


CLASSIFIED TELEPHONE DIRECTORY

Refrigerators
GENERAL ELECTRIC REFRIGERATORS

"Make It Safe To Be Hungry" G-E refrigerators CONSERVE food and PROTECT health. Keep yours in A-1 condition. For competent service see your Authorized G-E dealer.

"WHERE TO GET SERVICE"
HOUSEHOLD SERVICE CALLS
GENERAL ELEC SUPPLY CORP 2101 Bdwy HA rrison-7447
Sat-Sunday-Nights & Holidays Call.. VA lentine-7134
DEALERS.
Aero Radio & Elec Serv 203 E Gregory... JA ckson-8205
East Side Sales & Serv 4944 E 24... BE nton-5525
Mack-Ryer Co 3015 Bdwy WE stport-6980
APPLIANCE CO

This is what prospects would see when they look under "refrigerators" for the General Electric trade mark. Note how easy it is for them to contact authorized G. E. dealers.

How can "war migrants" find your dealers?

War work has transplanted millions of Americans. But even in strange towns they can locate your service outlets — if your trade mark and dealers are in the Classified. Customers appreciate being directed to authorized outlets for repairs on their time-worn products. Helping to keep their equipment serviceable for the duration creates good-will for post war sales of new equipment.

Let a Directory Advertising Representative discuss with you your war problems and their relations to the Classified Trade Mark Service Plan. You can reach him by calling the business office of the telephone company.

AMERICAN TELEPHONE & TELEGRAPH CO. BELL SYSTEM AND ASSOCIATED COMPANIES

Blue Ox

He has sworn to protect its secret with his life. When it is not in his possession it is under double-armed guard, twenty-four hours a day.

He alone carries it from the guard-room to the airplane, and when the mission has been completed, he carries it back to the guard-room. It is his responsibility. It is the Norden Bombsight. . . . He calls it the "Blue Ox."

The bombardier of a Flying Fortress* is the man around whom the great airplane is designed. Back of him and his instrument stretch thousands of man-hours, miles of blueprint, tons of aluminum, barrels of midnight oil.

An American bombardier, a "Blue Ox" and a Boeing Flying Fortress are the most formidable bombing team in the world. One reason is the great stability of the Flying Fortress, which provides a perfect bombing "platform" for "precision bombing." Another is the unequaled high-altitude performance, protective armament and fire-power, which enable the Fortress to reach her objective in daylight, despite flak or interceptors.

"Precision bombing" first began to be effective when the Fortresses bombed their objectives in Europe by daylight—from great altitudes—and with a hitherto unheard-of accuracy. This brand-new military tactic owes much of its effectiveness to Boeing engineers, who worked until they had designed an airplane with the speed, range, stability, load, fire-power and altitude to do the job.

The job still needs to be done, and the Fortresses are doing it every day—on major fighting fronts from Europe to the South Pacific. When the work of the Fortresses is over—when the war is won and the days of peace return—Boeing engineers will find many potential outlets for their skill and talents.

• • •

For in designing and building the Flying Fortress and other advanced aircraft, Boeing engineers and "productioneers" continually acquire new "know-how" in many fields: acoustical, electrical, structural, lubrication, etc. It's the kind of "know-how" that helps to win wars, and will some day help to make peacetime products better and cheaper.

DESIGNERS OF THE FLYING FORTRESS • THE STRATOLINER • PAN AMERICAN CLIPPERS **BOEING**

*THE TERMS "FLYING FORTRESS" AND "STRATOLINER" ARE REGISTERED BOEING TRADE-MARKS

From these plants of R. M. Hollingshead Corp.

WHIZ PRODUCTS

travel almost every allied supply route in the world!

New Year: BUY MOR

Resolution for the

R. M. HOLLINGSHEAD CORP.

Photo by U.S. Army Signal Corps

WHEN THE INFANTRY MOVES UP!

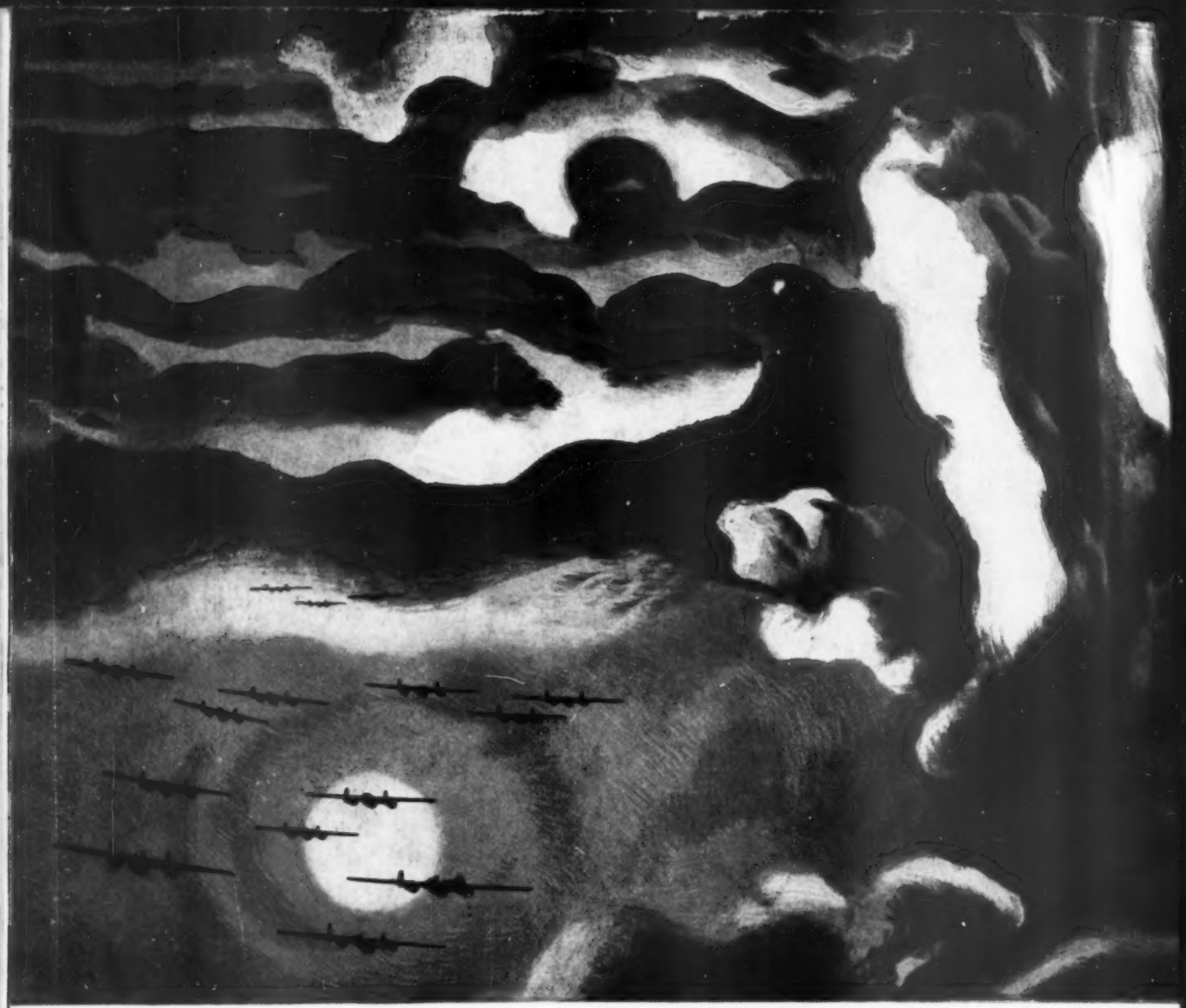
Slow, tortuous marches are as obsolete as the old GI saber! Today, when our soldiers move ... they "get there" fast. For we're giving them the speedy, all-important mobile equipment they need. We're giving them a *better than even* chance in battle. That means jeeps, tanks, trucks, and guns by the score ... mobile equipment that takes ball bearings by the millions.

The ball bearing makers are working night and day to keep pace with these gigantic demands ... not only for fighting equipment, but for the machines that turn it out. For this reason, a large majority of bearings have been taken away from their normal peacetime jobs – to do a bigger job. The Fafnir Bearing Company, New Britain, Connecticut.

FAFNIR

BALL BEARINGS

THE BALANCED LINE—FOR
ORDNANCE, AIRCRAFT AND INDUSTRIAL MACHINERY



To get there in time with what it takes

THIS IS SUBMITTED by the aircraft designers and engineers known as the "Northrop group". It suggests how certain new shortcuts in production are now working to give America harder-hitting, longer-ranging, safer warplanes... faster!

This message concerns one such shortcut. It deals with getting new-design, harder-fighting U. S. aircraft onto the battlefront in quantity while the enemy's new-design planes are still unfinished in his factories. It deals with *getting there in time... with what it takes.*

TO BUILD A NEW-DESIGN warplane requires patterns—quantity production calls for *many duplicate patterns* of every single part of the plane. These patterns, or templates, are made of metal. Each is shaped and cut and ground to an accuracy of .015 of an inch.

Time—man-hours by tens of thousands—go into template making on any new fighting plane design. And this has been one big reason why it has taken many months to get new-design warplanes rolling from the assembly lines in quantity.

It was a bottleneck which engineers of the Northrop group set out to break. After months of labor they discovered how to make identical duplicate templates by what's now known as "electrolytic etching". Today the new method turns out tens of duplicate patterns in the time and with the labor formerly needed to make one.

This new process actually shortens by five precious weeks the stupendous job of putting a typical new-design harder-hitting warplane into the air!

Northrop has made this faster tooling method available to all U. S. airplane makers. Northrop is also turning over, for other manufacturers to use, the Northrop method of *helium welding* which has removed one barrier to the all-welded airplanes of the future.

Other aircraft companies, in turn, are informing the Northrop group of their own new-found secrets. In fact, the whole aircraft industry is pooling its techniques—pooling its new devices and discoveries clear down the line from blueprints to finished planes.

That is teamwork as U.S. plane designers and plane builders understand it. That is the "makings" of victory.

NORTHROP AIRCRAFT, Inc.

Northrop Field, Hawthorne, California

MEMBER AIRCRAFT WAR PRODUCTION COUNCIL, INC.